

EAST - [9383738.wsp:1]

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L121: (3) amro and data ad
 L124: (1) amro and data ad
 L127: (1) "5515486".PN.
 L128: (44) data adj manipu
 L131: (0) data adj manipul
 L134: (2) data adj manipul

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 DB: USPAT:US-PGPUB
 Default operator: OR
☒ Plurals ☒ Synonyms
☒ Highlight all hit terms initially

data adj manipulat\$3 and user and input and interface and gui
 and siz\$3 and resiz\$3 and 345/788

BRS form SAR form Image Text

	U	I	Document ID	Issue Date	Pages	Title	Current OR	Current XRef	R
1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	US 5867154 A	19990202	24	Method and apparatus to select a display area within	345/788		
2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	US 5392388 A	19950221	11	Method and system for viewing graphic images in a	345/837	345/684 ; 345/784	

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EAST - [9383738.wsp:1]

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L273: (1) (detect\$3 same flesh) and(hue\$

L275: (39) detect\$4 and color and color

L276: (0) detect\$4 and color and color a

L277: (0) detect\$4 and color and color a

L278: (27) (flesh or skin or natural) ac

L279: (26) (flesh or skin or natural) ac

L281: (2) (flesh or skin or natural) ac

Search

DBs: USPAT, US-PGPUB

Default operator: OR

Plural

Synonyms

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(flesh or skin or natural) adj3 blue\$ adj2 green\$ and color and (Detect\$4 or select\$4) and

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Image

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	U	I	Document ID	Issue Date	Pages	Title	Current OR	Current XRef	R
1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6292617 B1	20010918	24	System and method for controlling the transfer of	386/42	348/188 ; 348/97	
2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6262819 B1	20010717	21	Hologram image recording apparatus and method	359/35	359/1 ; 359/23	
3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6254254 B1	20010703	39	Skin light exposure control methods	362/293	362/260 ; 362/280	
4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6129438 A	20001010	37	Skin light exposure control methods	362/2	359/361 ; 359/596	
5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6017360 A	20000125	36	Skin light exposure control methods	607/88	128/898	
6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5917987 A	19990629	24	System for controlling the transfer of an image on a	386/42	348/188 ; 348/97	
7	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5892619 A	19990406	37	Skin light exposure control methods	359/361	359/350 ; 49/404	
8	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5883740 A	19990316	35	Skin light exposure control methods	359/350	2/125	
9	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5621545 A	19970415	8	Image production using color error diffusion	358/518	358/1.9 ; 358/456	
10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5448377 A	19950905	38	Film image editing apparatus using image density	358/452	358/449	
11	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5239372 A	19930824	9	Stereoscopic video projection system	348/58	359/464	

Start

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Patent Classific.

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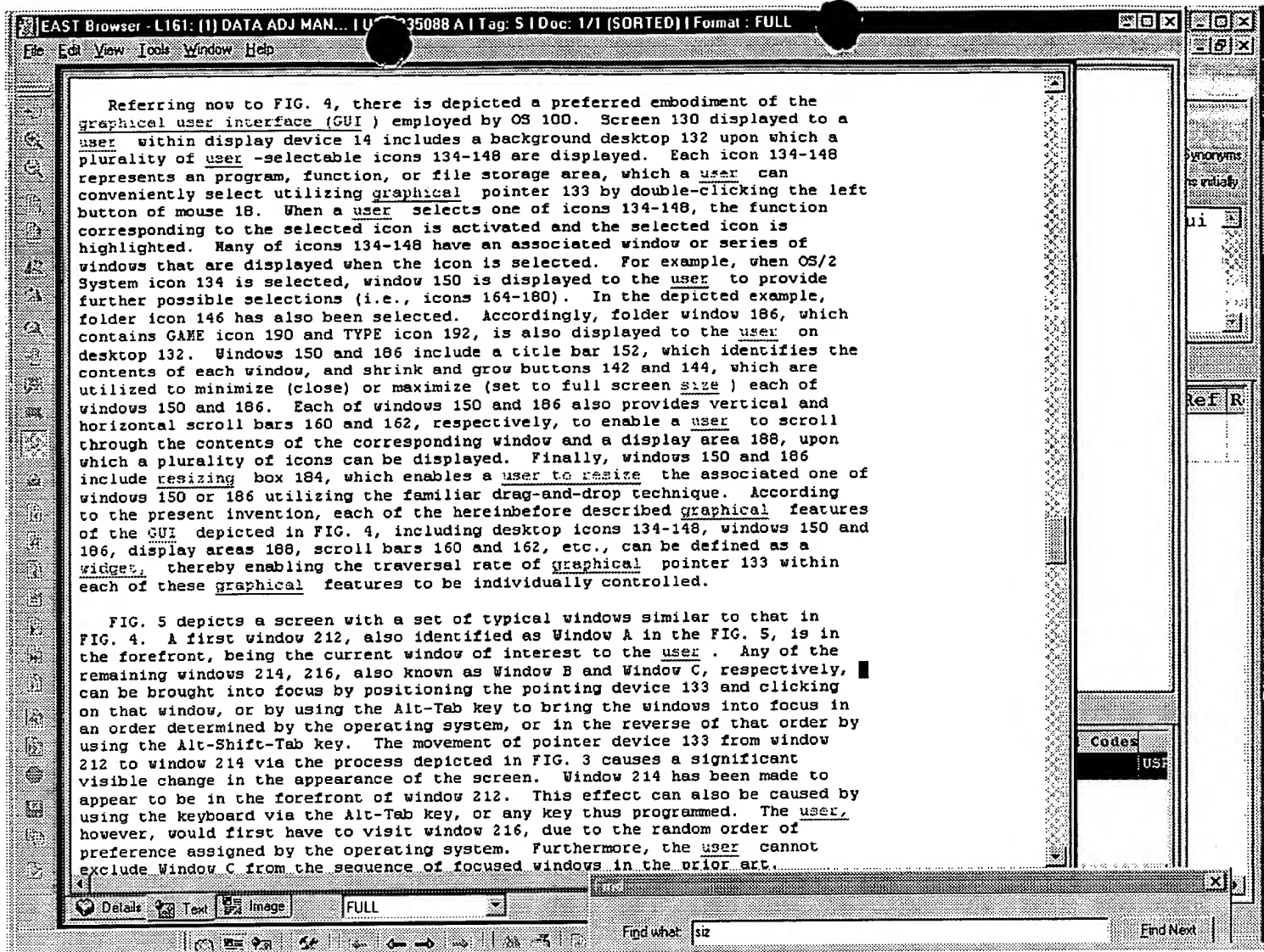
☒ Plurals ☒ Synonyms

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data adj manipulats$3 and user and input and interface and gui
and (siz$3 and resiz$3) same graphic$3 and 345/$.ccls. and
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 IS&R form
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	U	1	Document ID	Issue Date	Pages	Title	Current OR	Current XRef	R
1	R	R	US 5835088 A	19981110	14	Method and apparatus for providing programmable	345/803		
2	R	R	US 5671378 A	19970923	42	Method and system for sizing of graphical user interface	345/801		
3	R	□	US 5664216 A	19970902	110	Iconic audiovisual data editing environment	707/500.1	345/723 ; 345/967	
4	R	R	US 5559942 A	19960924	25	Method and apparatus for providing a note for an	345/802	345/804 ; 345/808	
5	R	R	US 5392388 A	19950221	11	Method and system for viewing graphic images in a	345/837	345/684 ; 345/784	



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DBs: USPAT ☒ Plurals ☒ Synonyms

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	U	I	Document ID	Issue Date	Pages	Title	Current OR	Current XRef	R
1	<input type="checkbox"/>	<input type="checkbox"/>	US 6133914 A	20001017	21	Interactive graphical user interface	345/661	345/473 ; 345/788	
2	<input type="checkbox"/>	<input type="checkbox"/>	US 6070175 A	20000530	75	Method of file editing using framemaker enhanced by	707/500	707/100	
3	<input type="checkbox"/>	<input type="checkbox"/>	US 5835090 A	19981110	20	Desktop manager for graphical user interface	345/764	345/788	
4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5673401 A	19970930	41	Systems and methods for a customizable sprite-based	725/139	345/763 ; 345/765	

EAST - [9383738.wsp.1]

File

View

Edit

Tools

Window

Help

L194: (8) 188 or 191

L200: (0) (188 or 191) and 152

L203: (0) 194 and 152

L206: (0) 194 and 128

L209: (0) 188 and 128

L197: (6) 188 or 191 and 152

L212: (1) 345/815 and 345/660

L215: (1) 345/815 and 13

L218: (0) 345/815 and amro

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DB: USPAT:US-PGPUB

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display and siz\$3 near5 (first or second)

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	U	I	Document ID	Issue Date	Pages	Title	Current OR	Current XRef
1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 20010038642 A1		142	System and method for performing scalable embedded		
2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6204846 B1	20010320		Data set user interface control for use in accessing	345/784	345/786 ; 345/866
3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6181338 B1	20010130		Apparatus and method for managing windows in	345/798	
4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6166736 A	20001226		Method and apparatus for simultaneously resizing and	345/798	345/777
5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6133914 A	20001017		Interactive graphical user interface	345/661	345/473 ; 345/788
6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US RE36602 E	20000307		Concurrent engineering design tool and method	700/97	
7	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6016145 A	20000118		Method and system for transforming the geometrical	345/788	
8	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5943053 A	19990824		Method and apparatus for expanding and contracting a	345/790	345/600
9	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5880733 A	19990309		Display system and method for displaying windows of an	345/850	345/427 ; 345/781
10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5822206 A	19981013		Concurrent engineering design tool and method	700/97	700/182

Hits

Details

L194: (8) 188 or 191
L200: (0) (188 or 191) and 152
L203: (0) 194 and 152
L206: (0) 194 and 128
L209: (0) 188 and 128
L197: (6) 188 or 191 and 152
L212: (1) 345/815 and 345/660
L215: (1) 345/815 and 13
L218: (0) 345/815 and amro

Search

Q0: ☒ Plurals ☒ Synonyms

Default operator: ☒ Highlight all hit terms initially

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11	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5798752 A	19980825		User interface having simultaneously movable tools	345/863	345/157 ; 345/629
12	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5777615 A	19980707		Multiple display pointers for computer graphical user	345/856	
13	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5745712 A	19980428		Graphical programming system and methods for assisting a	345/763	707/507
14	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5742836 A	19980421		Graphical programming system and methods with user	707/507	345/853 ; 707/1
15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5699534 A	19971216		Multiple display pointers for computer graphical user	345/856	
16	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5696887 A	19971209		Automated tissue assay using standardized chemicals and	700/247	
17	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5684945 A	19971104		System and method for maintaining performance data	714/20	714/25 ; 714/57
18	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	US 5682487 A	19971028		Method and apparatus providing resizable views	345/800	345/853 ; 345/969
19	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5611043 A	19970311		Debugger system and method for controlling child	714/38	
20	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5608898 A	19970304		Development system with methods for maintaining data	707/201	707/530
21			US 5586242 A	19961215		Method and apparatus for	345/755	345/755



- ☛ L194: (8) 188 or 191
- ☛ L200: (0) (188 or 191) and 152
- ☛ L203: (0) 194 and 152
- ☛ L206: (0) 194 and 128
- ☛ L209: (0) 188 and 128
- ☛ L197: (6) 188 or 191 and 152
- ☛ L212: (1) 345/815 and 345/660
- ☛ L215: (1) 345/815 and 13
- ☛ L218: (0) 345/815 and amro

Search

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19	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5611043 A	19970311		Debugger system and method for controlling child	714/38	
20	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5608898 A	19970304		Development system with methods for maintaining data	707/201	707/530
21	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5586243 A	19961217		Multiple display pointers for computer graphical user	345/856	345/754 ; 345/862
22	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5553235 A	19960903		System and method for maintaining performance data	714/20	714/57
23	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5552995 A	19960903		Concurrent engineering design tool and method	700/97	700/182
24	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5519438 A	19960521		Computer with a video subsystem that contains	348/180	345/781 ; 345/788
25	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5506955 A	19960409		System and method for monitoring and optimizing	714/26	714/47
26	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5487143 A	19960123		Computer user interface having tiled and overlapped	345/790	345/792
27	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5483468 A	19960109		System and method for concurrent recording and	702/186	345/418
28	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5432932 A	19950711		System and method for dynamically controlling	709/103	345/965 ; 702/179

Search:

DB: ☒ Plurals ☒ Synonyms

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	U	I	Document ID	Issue Date	Pages	Title	Current OR	Current XRef	R
1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	US 5867154 A	19990202	24	Method and apparatus to select a display area within	345/788		
2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	US 5392388 A	19950221	11	Method and system for viewing graphic images in a	345/837	345/684 ; 345/784	

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Q6: ☒ Plurals ☒ Synonyms

Default operator: ☒ Highlight all hit terms initially

"5873108"

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2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6223233 B1	20010424		Wallet for personal information device	710/73	710/301 ; 710/72	
3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6092067 A	20000718		Desktop information manager for recording and viewing	707/100	345/777 ; 345/786	
4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	US 6064975 A	20000516	17	Apparatus and method for highlighting holidays of a	705/8	345/581 ; 345/700	
5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5950193 A	19990907		Interactive records and groups of records in an	707/3	707/2 ; 707/5	
6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5873108 A	19990216		Personal information manager information entry allowing	707/507	345/764 ; 345/777	

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☐ L64: (75) 345/671
☐ L67: (614) 1 or 34 or 37 o
☐ L70: (1719) 67 or 28
☐ L73: (102) 67 and 28
☐ L76: (6) "5873108"
☐ L79: (4) "5790118"

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Search:
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 Default operator: OR ☒ Highlight all hit terms initially
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☒ BRS form ☒ SAR form ☒ Image ☒ Text

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2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5880724 A	19990309		Mobile client computer programmed for importation	345/780		
3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5878276 A	19990302		Handheld computer which establishes an input device	710/19		
4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	US 5790118 A	19980804	17	Mobile client programmed to hide empty table elements	345/744	345/864 ; 345/905	

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☐ L67: (614) 1 or 34 or 37 o
☐ L70: (1719) 67 or 28
☐ L73: (102) 67 and 28
☐ L76: (6) "5873108"
☐ L79: (4) "5790118"
☒ L82: (12) "5689666"

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4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6222534 B1	20010424		Article posting apparatus, article relationship	345/672	345/733 ; 345/751
5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6177931 B1	20010123		Systems and methods for displaying and recording	345/721	348/565 ; 348/906
6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6147684 A	20001114		Techniques for navigating layers of a user interface	345/803	345/788 ; 345/856
7	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5900873 A	19990504		Information processing device and information	345/794	345/800 ; 345/840
8	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5898433 A	19990427		3-D model window display device	345/782	
9	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5852436 A	19981222		Notes facility for receiving notes while the computer	345/867	707/512
10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5825360 A	19981020		Method for arranging windows in a computer workspace	345/807	
11	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5821931 A	19981013		Attachment and control of software notes	345/784	345/798 ; 345/804
12	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	US 5689666 A	19971118	73	Method for handling obscured items on computer displays	345/797	345/799 ; 345/804

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☒ L82: (12) "5689666"
☒ L85: (28) "5848373"
☒ L88: (2) "5848373" and 345
☒ L91: (77) "5559942"
☒ L94: (4) "5682487"
☒ L97: (17) "5859628"

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DB: USPAT, US-PGPUB
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9	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6124826 A	20000926		Navigation device for people	342/357.09	340/995 ; 342/357.13
10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6118434 A	20000912		Module structure	345/173	340/438
11	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6112174 A	20000829		Recognition dictionary system structure and	704/251	701/117 ; 701/213
12	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6106457 A	20000822		Compact imaging instrument system	600/175	396/312 ; 396/532
13	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6087952 A	20000711		Remote mobile data suite and method	340/693.5	206/522 ; 297/140
14	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6047047 A	20000404		Telecommunication configurations for	379/93.24	379/110.01 ; 379/90.01
15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6032089 A	20000229		Vehicle instrument panel computer interface node	701/36	307/10.1 ; 701/1
16	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5996956 A	19991207		Mounting platform for an electronic device	248/309.1	248/688 ; 345/173
17	<input type="checkbox"/>	<input type="checkbox"/>	US 5859628 A	19990112	13	Apparatus and method for a personal onboard information	345/173	340/990 ; 345/660

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☒ L88: (2) "5848373" and 345
☒ L91: (77) "5559942"
☒ L94: (4) "5682487"
☒ L97: (17) "5859628"
☒ L100: (0) 73 and amro
☒ L103: (6) (67 or 28) and am

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Search

Q8: USPAT:US-PGPUB ☒ Plurals ☒ Synonyms

Default operator: OR ☒ Highlight all hit terms initially

(67 or 28) and amro

☒ BRS form ☒ ISAR form ☒ Image ☒ Text

	U	I	Document ID	Issue Date	Pages	Title	Current OR	Current XRef	R
1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6175347 B1	20010116	15	Liquid crystal display apparatus	345/87	345/660 ; 345/672	
2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6172685 B1	20010109	11	Method and apparatus for increasing the amount and	345/471	345/472	
3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6133914 A	20001017	21	Interactive graphical user interface	345/661	345/473 ; 345/788	
4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6011551 A	20000104	7	Method, memory and apparatus for automatically resizing a	345/788	345/803	
5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5805161 A	19980908	14	System and method for data processing enhanced	345/786	345/663 ; 345/684	
6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5699535 A	19971216	7	Method, memory and apparatus for automatically resizing a	345/800	345/660 ; 345/661	

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EAST - [9383738.wsp.1]

File View Edit Tools Window Help

Drafts

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- BRS:
- Pending
- Active
 - L1: (2745) ibm and (pda or hand adj held)
 - L5: (29) ibm and (pda or hand adj held)and user and input
 - L9: (3) ibm and (pda or hand adj held)and user and inp
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USPAT:US:PGPUB:IBM: ☒ Plural: ☒ Synonyms

Default operator: OR ☒ Highlight all hit terms initially

ibm and (pda or hand adj held)and user and input and interface and (siz\$3 and resiz\$3) same graphic\$3

BRS form ISAR form Image Text

	u	1	Document ID	Issue Date	Pages	Title	Current OR	Current XRef R
1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 20010038642 A1		142	System and method for performing scalable embedded		
2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6313838 B1	20011106		Estimating graphics system performance for polygons	345/420	345/428
3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6208273 B1	20010327		System and method for performing scalable embedded	341/51	341/87 ; 710/68

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While the invention has been described in detail herein in accord with certain preferred embodiments thereof, modifications and changes therein may be effected by those skilled in the art. Accordingly, it is intended by the appended claims to cover all such modifications and changes as fall within the

displayed exclusively on the location of the last value of a variable. This technique of displaying is also required to implement 2. since requires the application maintain something about value of its old, forthcoming of the display on its side of the table. The application must know, like or its forthcoming only to be successful. This is because, although when the displayed alpha is on the display position of the screen

FOR OFFICE INFORMATION

and budgets and the fact that the current structure of existing means of payment of candidates of whom there is a budget for representation under "DC" represents a significant cost without GNC in other ways.

It is proposed to give the following

[illegible]

It is a perfect embodiment of the process of sharing emotions on the flight, or making the association during the flight process is a lot. The process of connecting between the two is on the flight, "After the process of sharing emotions is a flight is

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The X Window System is an industry-standard system that allows programmers to develop graphical user interfaces . In the X Windows system interaction techniques are called "widgets ". A typical set of widgets includes a dialog box, file selection box, alert box, help box, list box, message box, radio button bank, radio buttons, choice button bank, choice buttons, toggle button bank, toggle button, fixed menu, pop-up menu, text input, scroll bar and application window. Each of these widgets is normally implemented as a window. In the X Windows system subwindows may also be used. The source code implementation of each widget consists of one or more calls to the X server. Thus when a widget subroutine is executed it causes a sequence of calls or commands or requests to be sent to the X server or window management system. OSF/Motif is an interaction toolkit that works with X windows and is one of a number of similar widget sets available for X Windows.

The architecture of the X Window System is based on the client-server model. A single process, known as the X server, is responsible for all input and output devices. The server creates and manages all windows on the display, produces text and graphics, and handles input devices such as the keyboard and mouse. The server implementation is independent of any application but is hardware specific. In the typical X Windows environment the application is a client and uses the services of the X server via a network connection using an asynchronous byte stream protocol. Multiple clients can connect to the same server. The X server 60 hides the details of the device-dependent implementation of the server from the clients.

The AP 83 communicates with the window management system via the Window System Interface which is considered part of the window management system for purposes of describing the present invention. The window management system interface may consist of a set of library routines for interfacing with the window management system or a higher level interaction toolkit or both. In the preferred embodiment the AP utilizes OSF/Motif to interface with the X windows system.

The foregoing paragraphs have described the placement of text blocks. However, the only property of text blocks that is essential for the invention to work is their rectangular shape. Thus, the invention is able to place any graphical object that has a rectangular shape or that can be bounded by a rectangle. Examples of such graphical objects include icons, pixmaps, bitmaps, graphical symbols, geometric shapes, windows and widgets .

While the invention has been described in detail herein in accord with certain preferred embodiments thereof, modifications and changes therein may be effected by those skilled in the art. Accordingly, it is intended by the appended claims to cover all such modifications and changes as fall within the

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File View Edit Tools Window Help

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☐ L302: (23) 260 and 218 and siz\$3

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DB: USPAT:US:PGPUB:EPO:JPO:DERWENT:IBM:DOB ☒ Plurals ☒ Synonyms

☒ BRS form ☒ ISAR form ☒ Image ☒ Text

	U	1	Document ID	Issue Date	Pages	Title	Current OR	Current XRef
1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 20010045983 A1		51	Remote control system and access control method for		
2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 20010035882 A1		13	Method and system for clustering and grouping		
3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 20010030683 A1		40	Controls for a surgical theater system		
4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 20010017622 A1		20	APPARATUS AND METHOD FOR GENERATING A CONFIGURABLE		
5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6198473 B1	20010306	36	Computer mouse with enhance control button (s)	345/163	
6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6181325 B1	20010130	13	Computer system with precise control of the mouse pointer	345/157	345/156 ; 345/160
7	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6131103 A	20001010	8	Method for changing font size of widget in base	707/542	345/472
8	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6014142 A	20000111	18	Apparatus and method for three dimensional	345/848	345/660 ; 345/840
9	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6014117 A	20000111	17	Ambient vision display apparatus and method	345/8	340/980 ; 345/7
10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5874956 A	19990223	19	Apparatus and method for three dimensional	345/854	
11	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5859639 A	19990112	18	Mechanism to control visible presence of desktop objects	345/788	345/977
12	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5721848 A	19980224	13	Method and apparatus for building efficient and	345/764	345/788 ; 345/798
13	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5684918 A	19971104		System for integrating video and communications	386/83	348/14.01 ; 386/46

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File View Edit Tools Window Help

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☒ L302: (23) 260 and 218 and siz\$3

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☒ BRS form ☒ ISAR form ☒ Image ☒ Text

	U	1	Document ID	Issue Date	Pages	Title	Current OR	Current XRef
11	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5859639 A	19990112	18	Mechanism to control visible presence of desktop objects	345/788	345/977
12	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5721848 A	19980224	13	Method and apparatus for building efficient and	345/764	345/788 ; 345/798
13	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5684918 A	19971104	57	System for integrating video and communications	386/83	348/14.01 ; 386/46
14	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5678039 A	19971014	48	System and methods for translating software into	707/4	345/835 ; 707/203
15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5623590 A	19970422	34	Dynamic graphics arrangement for displaying	345/772	345/440 ; 345/835
16	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5610653 A	19970311	56	Method and system for automatically tracking a	348/170	345/723 ; 348/561
17	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5592602 A	19970107	17	User interface and method for controlling and	345/474	345/839 ; 707/500.1
18	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5428730 A	19950627	17	Multimedia system having software mechanism providing	345/740	345/747 ; 345/839
19	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5406307 A	19950411	11	Data processing apparatus having simplified icon	345/800	345/179 ; 345/839
20	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5297034 A	19940322	15	Telepathology diagnostic network	382/128	
21	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5237408 A	19930817	123	Retrofitting digital video surveillance system	348/154	725/108 ; 725/131
22	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	US 5227771 A	19930713	20	Method and system for incrementally changing	345/800	345/157 ; 345/660
23	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5216596 A	19930601	38	Telepathology diagnostic network	348/79	382/128 ; 600/476

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SUMMARY OF THE INVENTION

It is therefore an object of the present invention to provide a method and system for incrementally sizing a window on a display.

It is another object of the present invention to provide a method and system for incrementally sizing a window on a display, which method utilizes sizing icons.

The system and method of the present invention is for incrementally adjusting of the size of a window in a user interface with a data processing system. The window is displayed on the interface, with the window having data located therein. An enlarge icon and a reduce icon are displayed on the interface. A user input for changing the size of the window is detected. The input comprises a selection of either the enlarge icon or the reduce icon. A new window size is determined according to a predetermined incremental value so as to form a new window. The new data that is to be located in the new window is determined. The new window and the new data located therein is then displayed on the interface.

In one aspect of the method of the present invention, the window has plural border segments around the perimeter of the window. The step of forming the new window occurs by holding at least one border segment fixed in position on the interface while the remaining border segments move relative to the fixed border segment. In another aspect, if the border segment of the new window reaches a limit on the interface, then the fixed border segment of the new window is repositioned so that the new window can be viewed in its entirety on the interface.

In still another aspect, the user input is performed by locating an interface cursor on a selected one of the enlarge or reduce icons. The cursor is attached to the selected icon in the new window, wherein the cursor is automatically repositioned on the selected icon as the window changes size.

In still another aspect, the user is allowed to select the predetermined incremental value.

In another aspect, the method displays the window on the interface, with the window having data located therein. A user input for changing the size of the window is detected. A new window size according to a predetermined incremental value is determined so as to form a new window. New data that is to be located in the new window is determined. The new window and the new data located therein is then displayed on the interface. Then, it is determined if the user input is continuous, wherein if the user input is continuous then the window is sized again in accordance with the predetermined incremental value and

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In still another aspect, the user is allowed to select the predetermined incremental value.

In another aspect, the method displays the window on the interface, with the window having data located therein. A user input for changing the size of the window is detected. A new window size according to a predetermined incremental value is determined so as to form a new window. New data that is to be located in the new window is determined. The new window and the new data located therein is then displayed on the interface. Then, it is determined if the user input is continuous, wherein if the user input is continuous then the window is sized again in accordance with the predetermined incremental value and displayed on the interface. This allows the user to continuously increment the size of the window to a desired size.

In another aspect of the present invention, the method displays the window on the interface, the window having data located therein. An enlarge icon and a reduce icon are also displayed on the interface. A user input for changing the size of the window is detected. The input includes a selection of either the enlarge icon or the reduce icon by a cursor on the interface. A new window size is determined according to a predetermined incremental value so as to form a new window. The new window has newly positioned enlarge and reduce icons. New data that is to be located in the new window is determined. The cursor is attached to the selected and newly positioned icon. The new window and the new data located therein are displayed on the interface.

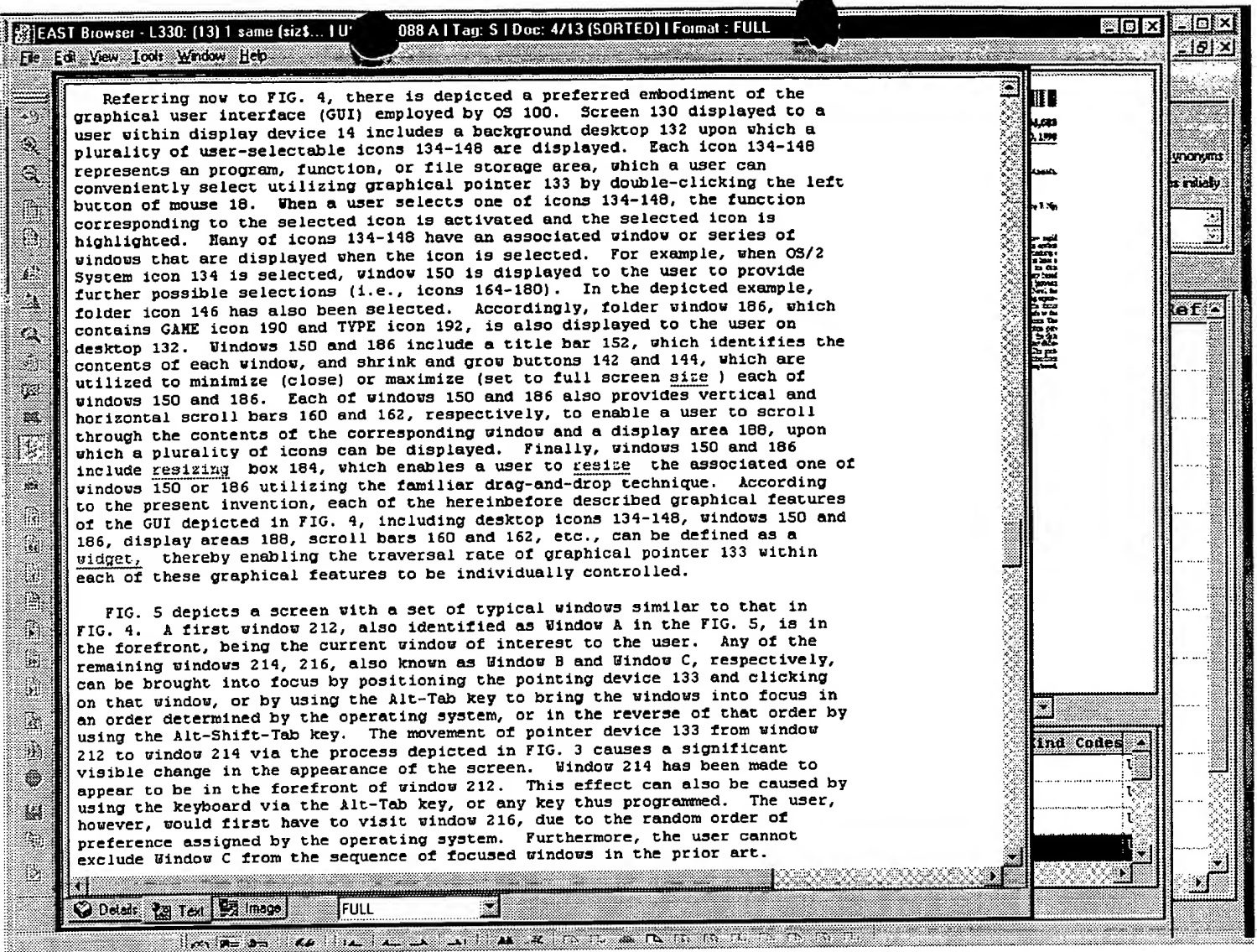
In yet another aspect of the invention, the method displays the window on the interface, with the window having data located therein. An enlarge icon and a reduce icon are also displayed on the interface. A user input for changing the size of the window is detected. The input includes a first selection of the enlarge icon to incrementally enlarge the window, a second selection of the enlarge icon to enlarge the window to a predetermined maximum size, a first selection of the reduce icon to incrementally reduce the window and a second selection of the reduce icon to reduce the window to a predetermined minimum size. If the input includes one of the first selections of the enlarge or reduce icons, then a new window size is determined according to a predetermined incremental value so as to form a new window. If the input includes one of the second selections of the enlarge or reduce icons, then a new window size is determined according to the respective predetermined maximum or minimum size. New data, if any, is determined to be located in the new window. The new window of the new data located therein are displayed on the interface.

DRAWING DESCRIPTION:

BRIEF DESCRIPTION OF THE DRAWINGS

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The widget registry also serves as a widget cache. Thus, the PGUI has the same performance benefits when accessing widgets as those described above for the image cache.

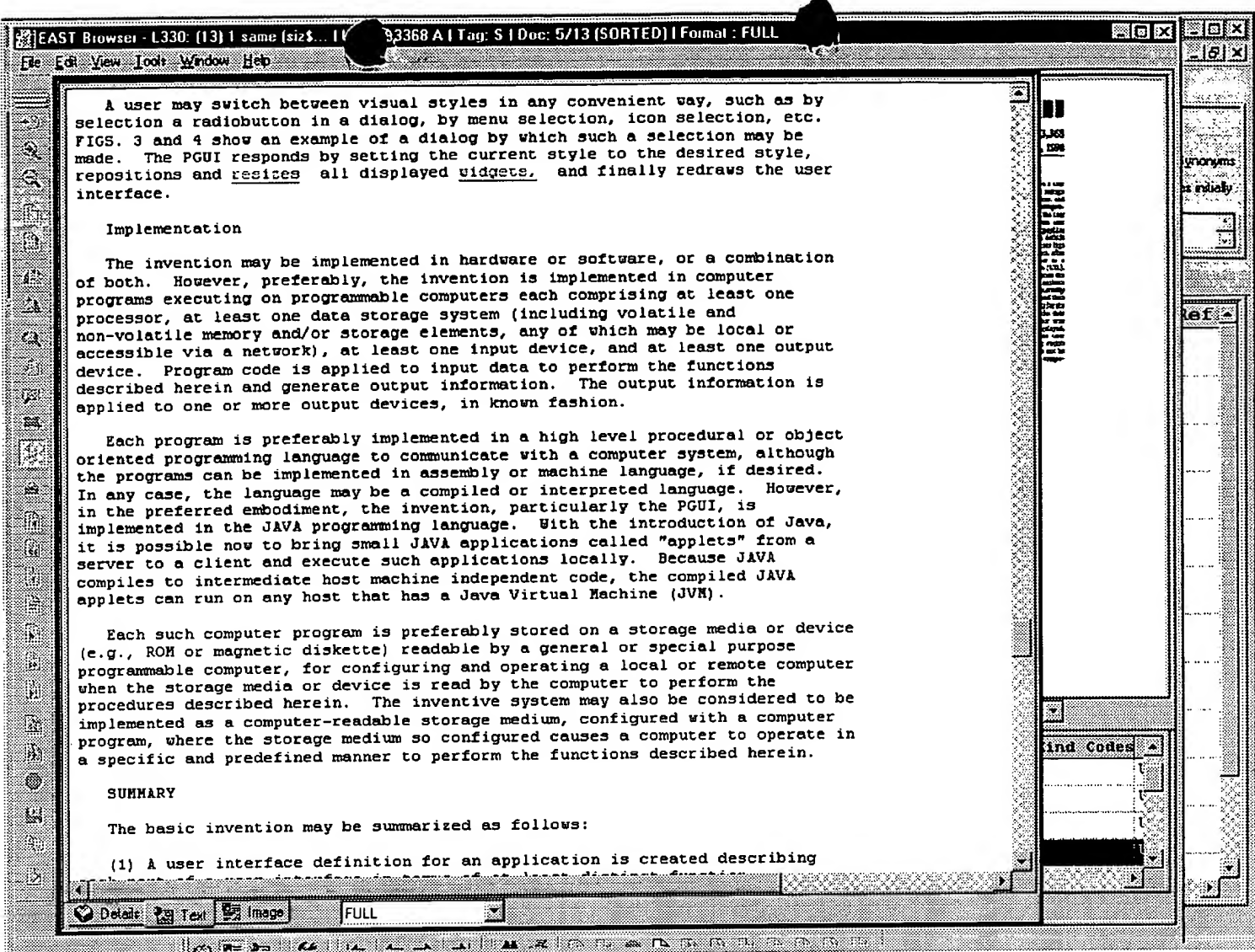
Referencing Listing 1 and Listing 2 again, the UIL geometryManager attribute provides the widget programmer a way to separate geometry management (i.e., widget positioning and sizing) from widget functionality. For example, both the MenuBarWidget and the ToolbarWidget controls use the HorizontalLayout geometry manager to position and size children widgets. Thus, children widgets do not need to position or size themselves, but only need to provide button widget functionality, such as responding to input events from pointing devices, a keyboard, or other input devices. Another advantage is that a widget programmer can reuse the geometry manager in different widgets or use different geometry managers in the same widget.

Events

In the preferred embodiment, the invention uses an event object to invoke actions, such as loading a UIL user interface description file and any other actions known to those skilled in the art. Event handlers provide the functionality for each user interface control. The event handlers respond to events input device events (e.g., keyboard input, mouse input, touch screen input, etc.), system events, user defined events, and other events known to those skilled in the art. In the preferred embodiment, if an event handler can service or handle an event, it returns true, otherwise it returns false and the event propagates to the parent widget. An example of a radio button event handler is shown below:

```
public class RadioButtonEventHandler
extends EventHandler Widget currentRadioButton; public boolean
handleEvent(Event event, Widget widget) { if (event.id equals
Event.MOUSE.sub.-- UP) { Event evt = new Event(Event.CHANGE.sub.-- STATE);
currentRadioButton.state = unselected; currentRadioButton.postEvent(evt);
currentRadioButton = widget; widget.state = selected; widget.postEvent(evt);
return true; } return false; }
```

In this example, the event handler responds to an input device event, in particular, a MOUSE.sub.-- UP event (i.e., detection of the release of a mouse button). The event handler changes the state of the current radiobutton and then creates a new system event, CHANGE.sub.-- STATE, and sends the new event to the current selected radiobutton by calling the postEvent function. An event handler can also have state information. The current radiobutton selected is the event handler's state. After setting its state, the event handler sets the new current radiobutton's state to selected and then sends the



A user may switch between visual styles in any convenient way, such as by selection a radiobutton in a dialog, by menu selection, icon selection, etc. FIGS. 3 and 4 show an example of a dialog by which such a selection may be made. The PGUI responds by setting the current style to the desired style, repositions and resizes all displayed widgets, and finally redraws the user interface.

Implementation

The invention may be implemented in hardware or software, or a combination of both. However, preferably, the invention is implemented in computer programs executing on programmable computers each comprising at least one processor, at least one data storage system (including volatile and non-volatile memory and/or storage elements, any of which may be local or accessible via a network), at least one input device, and at least one output device. Program code is applied to input data to perform the functions described herein and generate output information. The output information is applied to one or more output devices, in known fashion.

Each program is preferably implemented in a high level procedural or object oriented programming language to communicate with a computer system, although the programs can be implemented in assembly or machine language, if desired. In any case, the language may be a compiled or interpreted language. However, in the preferred embodiment, the invention, particularly the PGUI, is implemented in the JAVA programming language. With the introduction of Java, it is possible now to bring small JAVA applications called "applets" from a server to a client and execute such applications locally. Because JAVA compiles to intermediate host machine independent code, the compiled JAVA applets can run on any host that has a Java Virtual Machine (JVM).

Each such computer program is preferably stored on a storage media or device (e.g., ROM or magnetic diskette) readable by a general or special purpose programmable computer, for configuring and operating a local or remote computer when the storage media or device is read by the computer to perform the procedures described herein. The inventive system may also be considered to be implemented as a computer-readable storage medium, configured with a computer program, where the storage medium so configured causes a computer to operate in a specific and predefined manner to perform the functions described herein.

SUMMARY

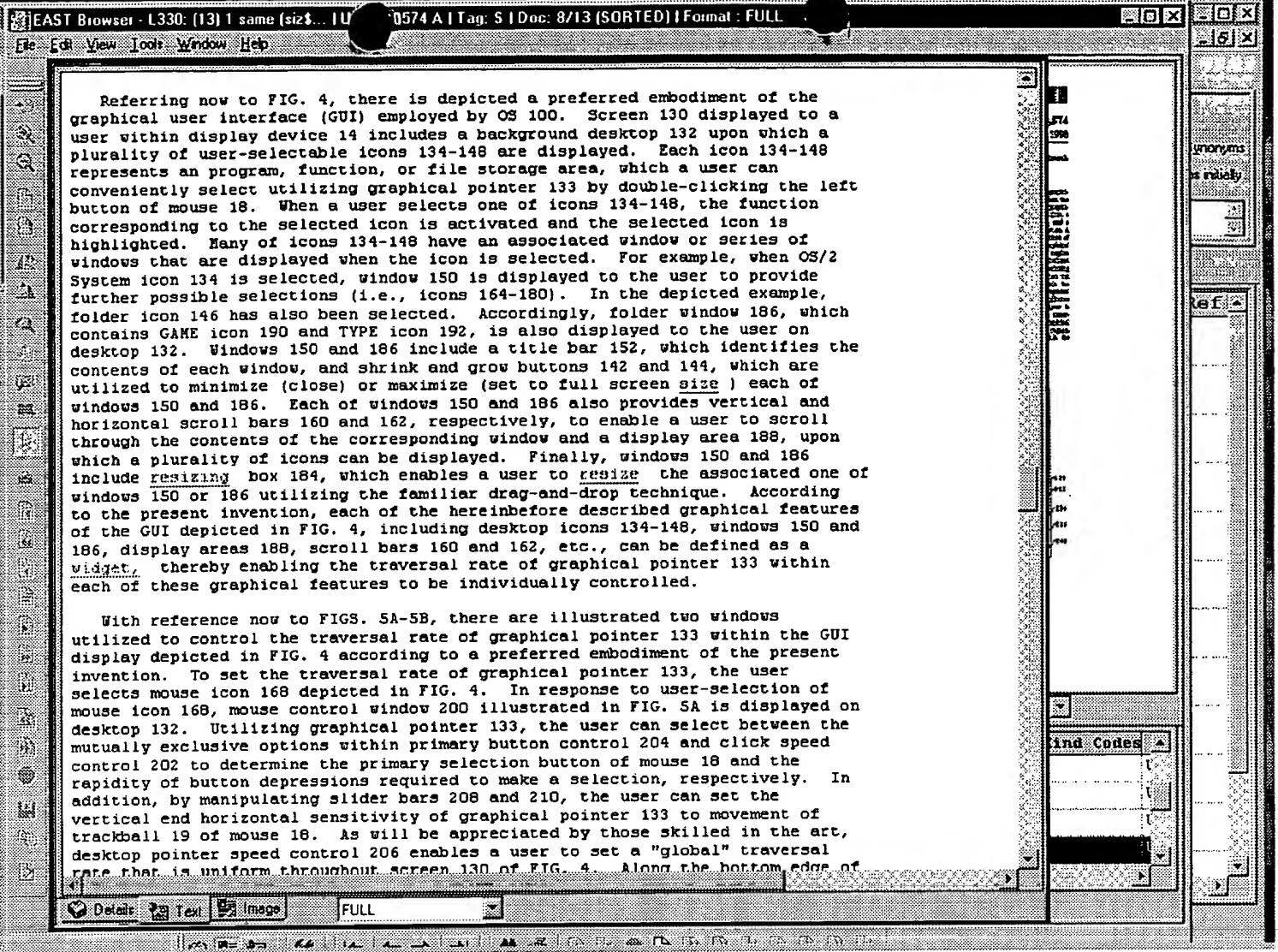
The basic invention may be summarized as follows:

- (1) A user interface definition for an application is created describing

Once a scrolling graph object display, or "scrollgraph", is arranged by application 42, the object 20 responds to various events provided by application 42, a managing widget 44, and the human operator 46 (FIG. 3). The managing widget 44 is a standard widget included within the X-window system. When new data is available to be plotted, application 42 calls the aforementioned function which provides the new data to scrollgraph widget 48. The scrollgraph widget 48 plots the new data 30 and updates the display 21. The parent of the scrollgraph widget 48, i.e., managing widget 44, provides resize and expose events to scrollgraph widget 48. A resize event 50 is generated when managing widget 44 and/or application 42 signals scrollgraph widget 48 to change its size. When one window is obscured by another (not shown), the contents of the obscured area of the obscured window are lost, and must be redrawn when the obscured area later is instructed to become exposed. Such expose events enable the scrollgraph to respond and either resize itself to fit any new geometry restrictions or to redraw any part of its display which has been uncovered by the movement of another window. When operator 46 moves scrollbar 32, such event is provided to scrollgraph widget 48, which responds by drawing the new region to be displayed, that is, scrolling the display along scrolling axis 26.

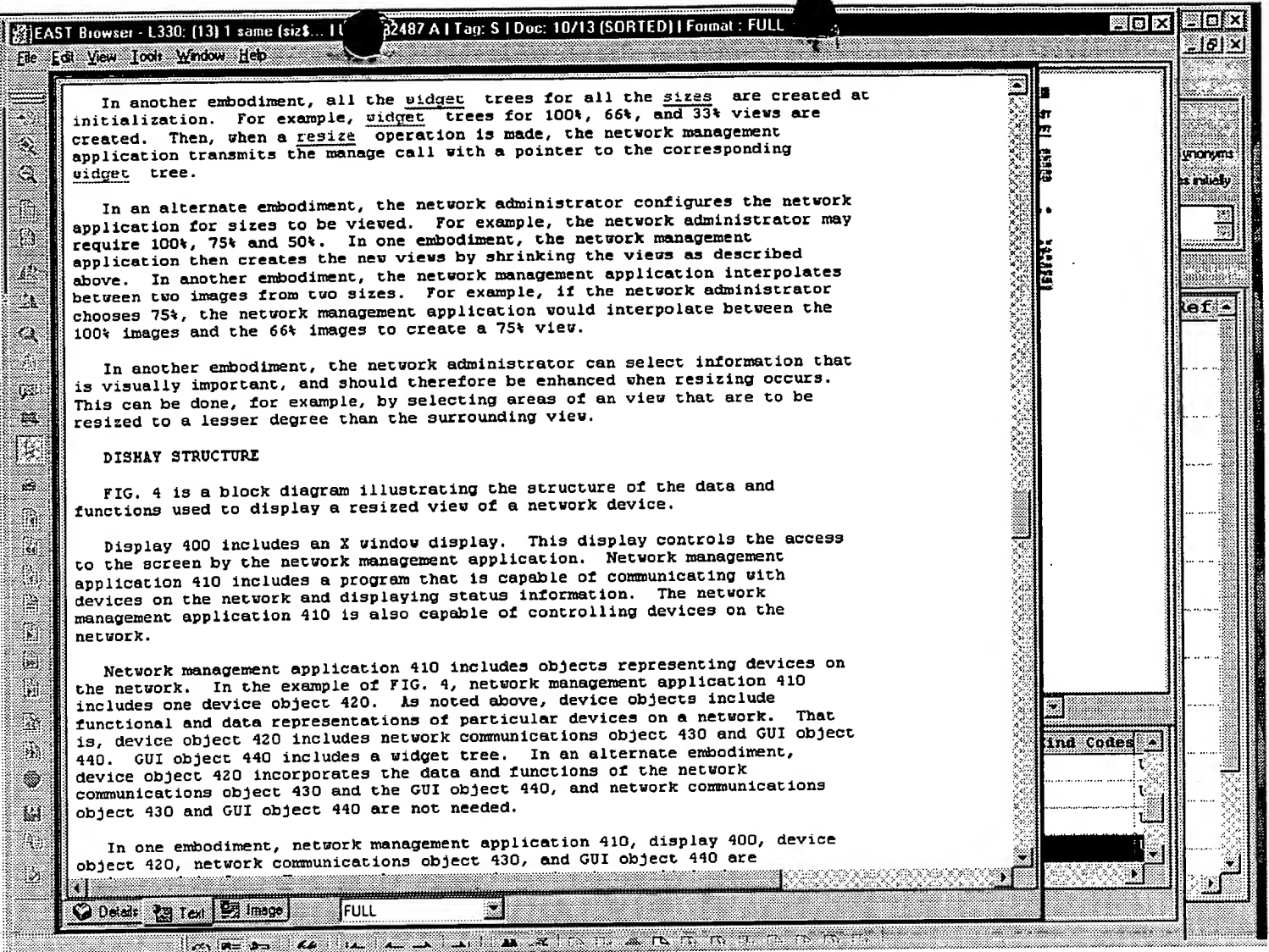
The scrollgraph widget 48 operates by drawing data to a pixmap (not shown), and then copying the pixmap to display 21. A pixmap is a three-dimensional array of bits. A pixmap is normally thought of as an array of pixels, where each pixel can be a value from 0 to $(2.\text{sup}.n - 1)$, where N is the depth (z-axis) of the pixmap. Applications which use windows are periodically called by a window manager to update the graphics displayed in the application's windows on the screen. A pixmap is used to store the graphics so that they do not have to be regenerated, thus speeding up display of complicated graphics. Usually only windows with detailed graphics will use pixmaps. Since a pixmap is of a fixed length and width, shifting a pixmap by a number of lines will cause data which is shifted out of the pixmap to be lost.

When new data 56 (FIG. 4) is provided to the scrollgraph widget 48, it must display this data in the plot 30 on display 21. The first thing which must be done by the scrollgraph widget 48 is to determine where to draw the new data. The scrollgraph widget 48 determines the number of pixels available between the fixed axis maximum and minimum values 24a, 24b (FIG. 2). Fixed axis 24 contains static maximum and minimum values, 24a, 24b, one at each end of the scrolling axis 26. The minimum value 24b is associated with the minimum point on scrolling axis 26 and the maximum value 24a is associated with the maximum point on the scrolling axis. There is thus a distance in pixels from the minimum static value 24b to the maximum static value 24a when traveling along scrolling axis 26, the distance being the number of pixels between the minimum and maximum static values. The scrollgraph widget 48 then uses this number of



Referring now to FIG. 4, there is depicted a preferred embodiment of the graphical user interface (GUI) employed by OS 100. Screen 130 displayed to a user within display device 14 includes a background desktop 132 upon which a plurality of user-selectable icons 134-148 are displayed. Each icon 134-148 represents an program, function, or file storage area, which a user can conveniently select utilizing graphical pointer 133 by double-clicking the left button of mouse 18. When a user selects one of icons 134-148, the function corresponding to the selected icon is activated and the selected icon is highlighted. Many of icons 134-148 have an associated window or series of windows that are displayed when the icon is selected. For example, when OS/2 System icon 134 is selected, window 150 is displayed to the user to provide further possible selections (i.e., icons 164-180). In the depicted example, folder icon 146 has also been selected. Accordingly, folder window 186, which contains GAME icon 190 and TYPE icon 192, is also displayed to the user on desktop 132. Windows 150 and 186 include a title bar 152, which identifies the contents of each window, and shrink and grow buttons 142 and 144, which are utilized to minimize (close) or maximize (set to full screen size) each of windows 150 and 186. Each of windows 150 and 186 also provides vertical and horizontal scroll bars 160 and 162, respectively, to enable a user to scroll through the contents of the corresponding window and a display area 188, upon which a plurality of icons can be displayed. Finally, windows 150 and 186 include resizing box 184, which enables a user to resize the associated one of windows 150 or 186 utilizing the familiar drag-and-drop technique. According to the present invention, each of the hereinbefore described graphical features of the GUI depicted in FIG. 4, including desktop icons 134-148, windows 150 and 186, display areas 188, scroll bars 160 and 162, etc., can be defined as a widget, thereby enabling the traversal rate of graphical pointer 133 within each of these graphical features to be individually controlled.

With reference now to FIGS. 5A-5B, there are illustrated two windows utilized to control the traversal rate of graphical pointer 133 within the GUI display depicted in FIG. 4 according to a preferred embodiment of the present invention. To set the traversal rate of graphical pointer 133, the user selects mouse icon 168 depicted in FIG. 4. In response to user-selection of mouse icon 168, mouse control window 200 illustrated in FIG. 5A is displayed on desktop 132. Utilizing graphical pointer 133, the user can select between the mutually exclusive options within primary button control 204 and click speed control 202 to determine the primary selection button of mouse 18 and the rapidity of button depressions required to make a selection, respectively. In addition, by manipulating slider bars 208 and 210, the user can set the vertical end horizontal sensitivity of graphical pointer 133 to movement of trackball 19 of mouse 18. As will be appreciated by those skilled in the art, desktop pointer speed control 206 enables a user to set a "global" traversal rate that is uniform throughout screen 130 of FIG. 4. Along the bottom edge of



As mentioned previously, when a resize is performed, a new widget tree is created. The network management application creates each widget from the corresponding image. This simplifies the creation of different sized views because the images determine the display area used by the view. Each widget determines how large the widget must be from the widget's corresponding image. Therefore, a 100% size view is made from information stored in a number of widgets. Each of these widgets knows its display area dimensions because they are based upon the dimensions of its corresponding 100% size image. Therefore, the 100% view display area depends on the aggregate display area of all the widgets used to create the 100% view. Using this technique also simplifies using enhanced data. If a particular portion of the network device is to be emphasized, then its corresponding image, for that size, can be made as large as is needed. Note that by making the enhanced image larger, that resulting part of the network work device will appear not to scale. The widget for that portion of the device makes itself as large as the enhanced image. The resulting view is then made from all the widgets, including the enhanced widget.

In the example of FIG. 4, port 1 widget 452 includes port 1 image 462. Thus, when the information of port 1 widget 452 is displayed, port 1 image 462 will be displayed. Similarly, port 2 image 467 is included in port 2 widget 457. Background widget 450 also includes a background image 460. Port 1 image 462 corresponds to the part of the view of FIG. 5 shown as port 1 of the hub.

EXAMPLES OF RESIZED NETWORK DEVICE VIEWS

The following discussion helps illustrate some of the benefits of the above embodiments of the present invention. Each of FIGS. 5-7 includes a display area 500. Display area 500 represents the maximum display real estate available to the network management application.

100%

FIG. 5 is a 100% view of a network device. 100% network device A view 510 uses the vast majority of display area 500. It would be very difficult to open a view of a second hub and monitor both hubs simultaneously.

However, the 100% view does provide clear information regarding the various ports, connectors, LEDs, text and buttons, of the network device.

66%

FIG. 6 is a 66% view of a network device. 66% network device A view 610 (66% network device A) represents a view of network device A reduced to 66% of

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File Edit View Tools Window Help

:VALID *TDB-ACC-NO: NN9801513

DISCLOSURE TITLE: Dialog and Message Box Enlargement

PUBLICATION-DATA: IBM Technical Disclosure Bulletin, January 1998, US

VOLUME NUMBER: 41

ISSUE NUMBER: 1

PAGE NUMBER: 513 - 514

PUBLICATION-DATE: January 1, 1998 (19980101)

CROSS REFERENCE: 0018-8689-41-1-513

DISCLOSURE TEXT:

Disclosed is a new implementation for the operation, double-clicking title bar of dialog or message box, in the current GUI (Graphical User Interface) flavored operating system for usability improvement. The new implementation is that double-clicking the title bar enlarges the dialog or message box along with the all contents of the dialog or message box in order to fit it to the maximum screen size or user-defined size. This enables the users to continue the normal operation with the enlarged dialog or message box. Double-clicking the title bar of the enlarged dialog or message box changes the size to the original.

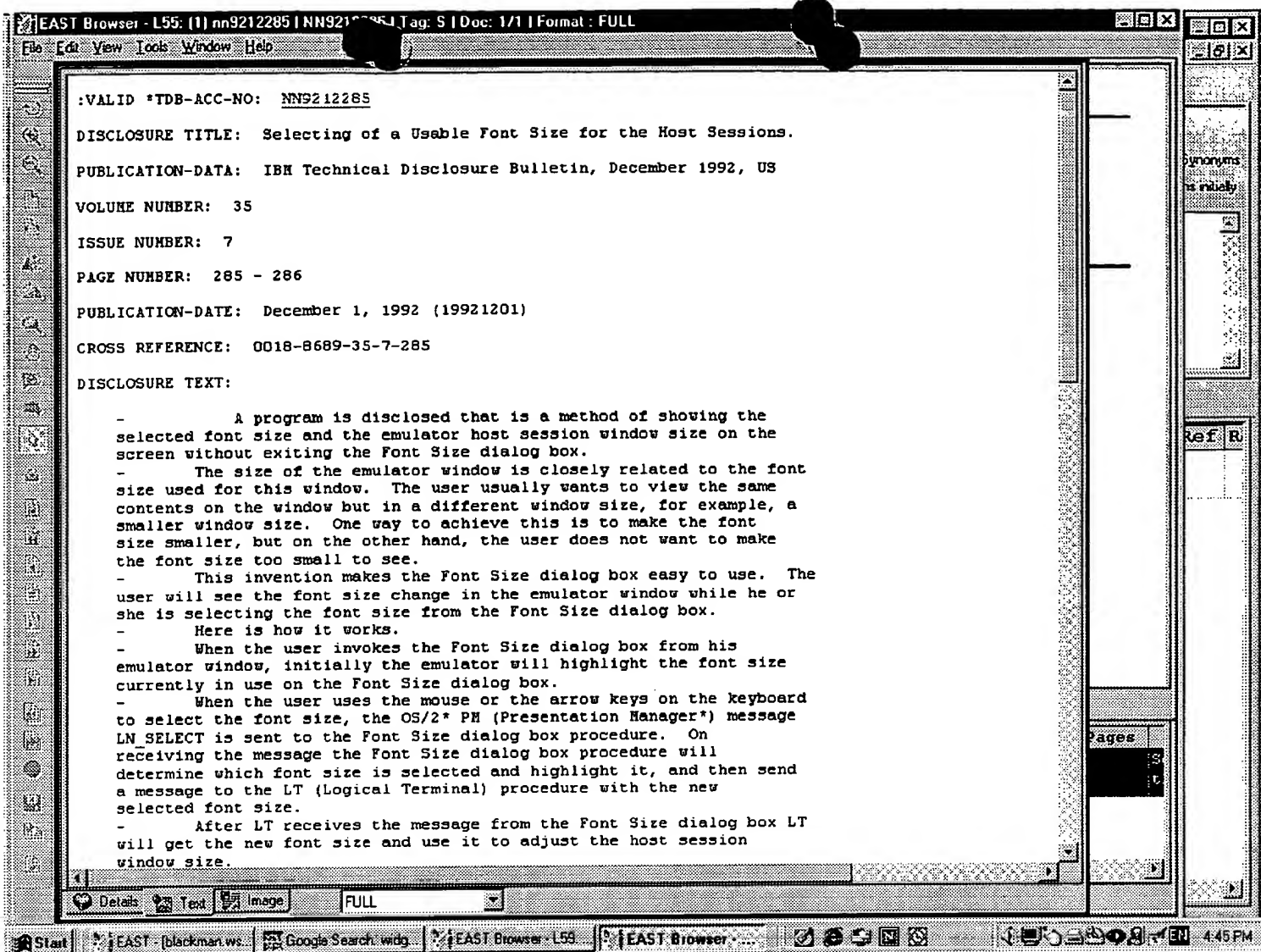
Recently, as computer screen resolution is becoming large, the actual size of images displayed on the screen is becoming small, which decreases the visibility and usability.

Currently, available operating systems have no effect on double-clicking the title bar of a dialog or message box. This new implementation enhances the visibility, even in the screen high-resolution environment. This can be implemented by either an application software or an operating system.

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- This invention makes the Font Size dialog box easy to use. The user will see the font size change in the emulator window while he or she is selecting the font size from the Font Size dialog box.

- Here is how it works.

- When the user invokes the Font Size dialog box from his emulator window, initially the emulator will highlight the font size currently in use on the Font Size dialog box.

- When the user uses the mouse or the arrow keys on the keyboard to select the font size, the OS/2® PM (Presentation Manager®) message LN SELECT is sent to the Font Size dialog box procedure. On receiving the message the Font Size dialog box procedure will determine which font size is selected and highlight it, and then send a message to the LT (Logical Terminal) procedure with the new selected font size.

- After LT receives the message from the Font Size dialog box LT will get the new font size and use it to adjust the host session window size.

- To select the right font size, the user only needs to bring up the Font Size dialog box once and use the mouse or the arrow key on the keyboard to highlight the font size on the Font Size dialog box and the user will see the actual font size and the window size change on the screen. When the combination of the right font size and the window size is shown, the user can click the SAVE button on the dialog box or just press the ENTER key. The font size will then be saved. If the CANCEL button is clicked on the dialog box then the font size is changed back to the original one.

- The SAVE, CANCEL or ENTER key will exit the Font Size dialog box.

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File Edit View Tools Window Help

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DISCLOSURE TITLE: Dynamic Marquee Selection Support in the Container Control

PUBLICATION-DATA: IBM Technical Disclosure Bulletin, August 1993, US

VOLUME NUMBER: 36

ISSUE NUMBER: 8

PAGE NUMBER: 595 - 598

PUBLICATION-DATE: August 1, 1993 (19930801)

CROSS REFERENCE: 0018-8689-36-8-595

DISCLOSURE TEXT: ■

This document contains drawings, formulas, and/or symbols that will not appear on line. Request hardcopy from ITIRC for complete article.

- Most PC applications being developed today have a Graphical User Interface (GUI) in which data is presented as objects. The objects are generally represented as graphical images that can be selected or de-selected by an end user. One selection method is the usage of a mouse to marquee select a group of items. The mouse is used to position and size a rectangular box around items to be selected. The act of expanding/shrinking the box with a mouse is referred to as "rubber-banding". The implementation of "rubberbanding" a rectangular box to select items is marquee selection.
- Developers of GUI applications should give immediate feedback during a marquee selection indicating exactly which items have been selected. The container control provides the end user with immediate selection emphasis feedback on the items which are selected, while the user expands or shrinks the rubberband box.
- This article documents the idea and algorithm which displays and removes selection emphasis on all items contained within the rubberband box. The algorithm maintains the items currently in view since marquee selection can only be performed on items in view. When the user starts a marquee selection and changes the size of the rubberband box, the algorithm searches only the items in view and displays selection emphasis on those items contained within the box.
- An "undo" capability is provided. When the rubberband box is

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article.

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- An "undo" capability is provided. When the rubberband box is reduced so that some items are no longer contained within the box, selection emphasis is removed from the items which were selected by the current marquee selection. The selection state of items which were selected before the current marquee selection remains as they were. These features of dynamic selection feedback are not implemented in existing marquee selection implementations.

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:VALID *TDB-ACC-NO: NA9404635

DISCLOSURE TITLE: Sizeable Scroll Bar Box for Text Display

PUBLICATION-DATA: IBM Technical Disclosure Bulletin, April 1994, US

VOLUME NUMBER: 37

ISSUE NUMBER: 4A

PAGE NUMBER: 635 - 636

PUBLICATION-DATE: April 1, 1994 (19940401)

CROSS REFERENCE: 0018-8689-37-4A-635

DISCLOSURE TEXT:

This document contains drawings, formulas, and/or symbols that will not appear on line. Request hardcopy from ITIRC for complete article.

- When editing documents of more than a few pages, changing the amount of text displayed has resizing windows or changes in fonts involved.

- A technique is provided that will facilitate display of varying amounts of text in a document by sizing the scroll bar box (referred to hereafter as the scroll box). The concept is very straight forward and illustrated in Figs. 1 and 2. The user merely resizes the scroll box using the "handles" at either end of the box. The amount of text displayed in the edit window changes dynamically with scroll box resizing. This is accomplished through font size changes. As the user increases the size of the scroll box, the font size decreases, thus displaying more text in the edit window. Conversely, as the user decreases the size of the scroll box, the font size increases, thus displaying less text in the edit window.

- The limits on the amount of text displayed in the edit window would be a function of the font sizes available to the user on their system.

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CROSS REFERENCE: 0018-8689-37-4A-635

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File Edit View Tools Window Help

:VALID *TDB-ACC-NO: NN9801513

DISCLOSURE TITLE: Dialog and Message Box Enlargement

PUBLICATION-DATA: IBM Technical Disclosure Bulletin, January 1998, US

VOLUME NUMBER: 41

ISSUE NUMBER: 1

PAGE NUMBER: 513 - 514

PUBLICATION-DATE: January 1, 1998 (19980101)

CROSS REFERENCE: 0018-8689-41-1-513

DISCLOSURE TEXT:

Disclosed is a new implementation for the operation, double-clicking title bar of dialog or message box, in the current GUI (Graphical User Interface) flavored operating system for usability improvement. The new implementation is that double-clicking the title bar enlarges the dialog or message box along with the all contents of the dialog or message box in order to fit it to the maximum screen size or user-defined size. This enables the users to continue the normal operation with the enlarged dialog or message box. Double-clicking the title bar of the enlarged dialog or message box changes the size to the original.

Recently, as computer screen resolution is becoming large, the actual size of images displayed on the screen is becoming small, which decreases the visibility and usability.

Currently, available operating systems have no effect on double-clicking the title bar of a dialog or message box. This new implementation enhances the visibility, even in the screen high-resolution environment. This can be implemented by either an application software or an operating system.

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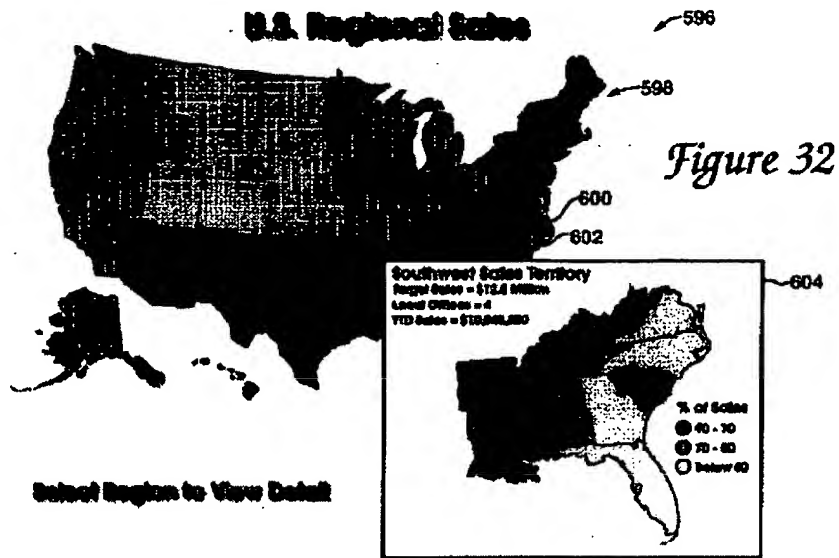
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DOCUMENT
TITLE

Abstract

A method for
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U.S. Patent

Oct. 15, 1996

Sheet 31 of 34

5,566,291

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Text

Image

HTML

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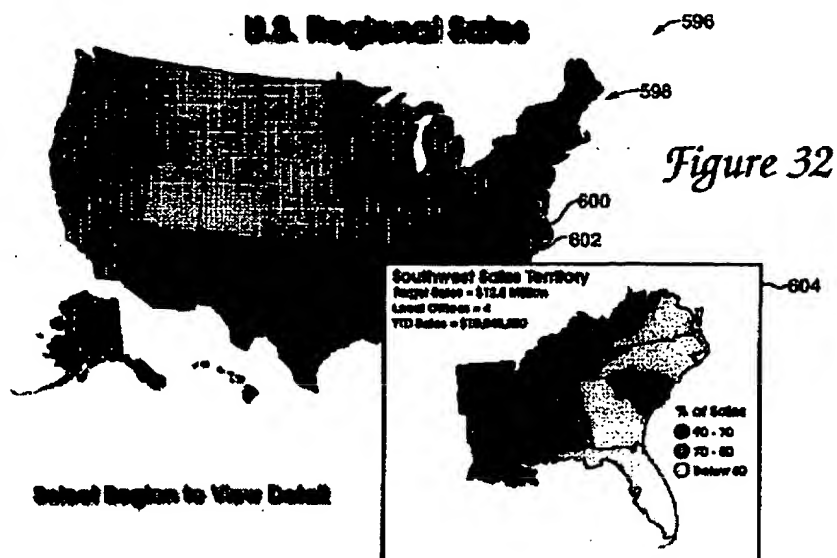
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TITLE

Abstract

A method for entering a feedback within a recorded identify the Selected location a feedback presentin collected visualizat that the r filtered in set of rec visualizer combined feedback preference displayin



U.S. Patent

Oct. 15, 1996

Sheet 31 of 34

5,566,291

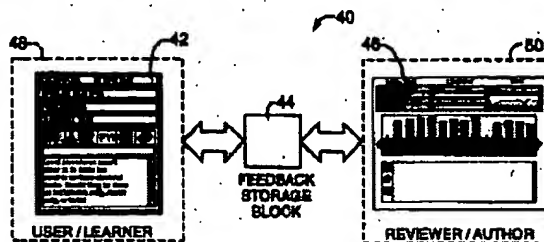


Figure 2

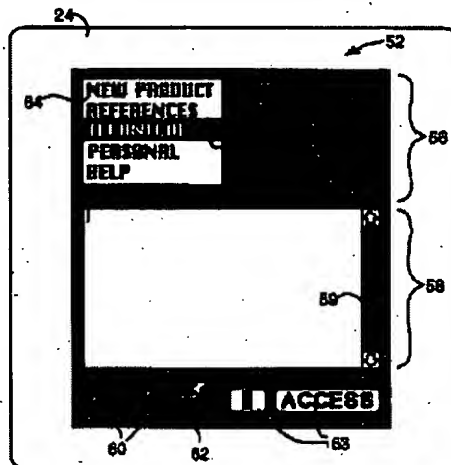


Figure 3a

Abstract

A method for providing feedback within a product development cycle. The method includes: receiving feedback from a user; recording the feedback; identifying the feedback; selecting a location for the feedback; presenting the feedback; collecting the feedback; visualizing the feedback; that the feedback is filtered in a set of recommended visualizations; combined feedback preferences; and displaying the feedback.

Details

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Text

Image

HTML

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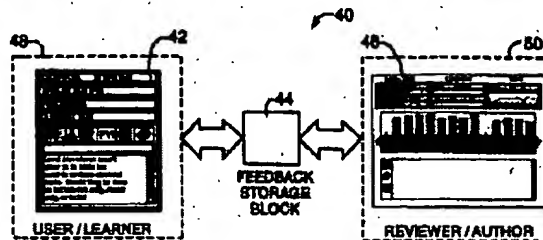


Figure 2

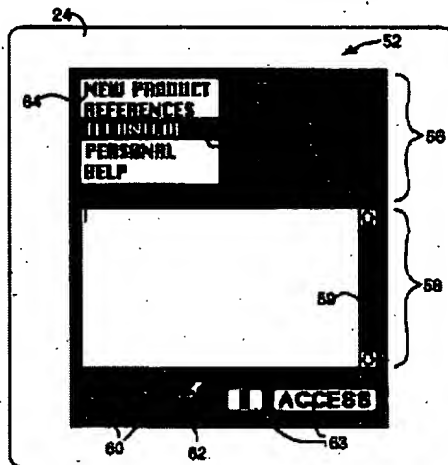


Figure 3a

Abstract

A method for entering feedback within a product recorded within a product. The method identifies the selected location of feedback presentation. The collected feedback is visualized that the feedback is filtered in a set of recorded visualizations. The combined feedback preference is calculated.

Details

Details

Text

Image

HTML

Full

This enlarged icon display remains on the screen for approximately three seconds, unless it is terminated by the user, who can force truncation of the enlarged icon display at any time during those three seconds by an interrupting single click. Regardless of how the enlarged icon display is terminated--by running out the clock, or by being interrupted by the user--it is ultimately replaced by the original smaller image, in the standard size and shape frame, but surrounded by a heavy black frame all around, with the cursor once again displayed. This stage is illustrated in Drawing #3 of FIG. 2. The heavy black frame serves to identify this particular icon as the most recent object of interaction. The heavy black border remains around the icon until the user

The screenshot shows the 'Storyboard R' window. It contains a storyboard with several frames. The central frame is highlighted and contains a large black exclamation mark. To the left, there is a small thumbnail of a person. To the right, there are several empty frames. At the bottom right, there is a 'Close' button.

First, the user positions the cursor on one of the icons and clicks. This is shown schematically in Drawing #1 of FIG. 3. Upon clicking, the cursor disappears, the original irregular icon shape is redrawn in gray over a white mask, and a complementary view of the icon, displayed in a standard size and shape frame, is superimposed over the original icon. This standard size and shape icon will be positioned to be centered over the original icon, as long as this is possible without obscuring any of the standard size and shape icon. If any of that standard configuration icon would be obscured by the boundaries of the window if so displayed, then the standard configuration icon is shifted the minimal distance(s) to appear with completely unobstructed visibility, as close to the position centered over the original icon as possible.

Storyboard H

! (Exclamation mark)

Icons and enclosed images both enlarge for specified period of time.
Parameters = 100, for period of ca. 8 seconds.

Detailed Description Text - DETX (22):

The view presented in the standard size and shape icon will be closely related to the default irregular-shaped view of the icon, but it will characteristically differ in various respects as well. Comparison of the views of the "closet" in Drawings #1 and #2 of FIG. 3 illustrates this relationship. Differences may affect the arrangement or framing of graphic elements, as well as the addition or subtraction of graphic elements. The changes are motivated by several factors. The relative size of the two views may dictate changes; the orientation may occasion changes as well. In this instance, the orientation of the standard-frame view allows for a more natural display of items in a "closet", as well as allowing for the inclusion of additional items to provide more help to users. Bearing in mind that it is the standard-frame view which will appear in Storyboard contexts, where the "floorplan" schema will not be present, we can appreciate that additional graphic information to help users recall or decipher the icons may well be appreciated.

Detailed Description Text - DETX (24):

This enlarged icon display remains on the screen for approximately three seconds, unless it is terminated by the user, who can force truncation of the enlarged icon display at any time during those three seconds by an interrupting single click. Regardless of how the enlarged icon display is terminated—by running out the clock, or by being interrupted by the user—it is ultimately replaced by the smaller icon configuration, in the standard size and shape frame of Drawing #2 of FIG. 3, surrounded by a heavy black frame all around, with the cursor once again displayed. This stage is illustrated in Drawing #4 of FIG. 3. The heavy black frame serves to identify this particular icon as the most recent object of interrogation. The heavy black border remains around the icon until the user clicks elsewhere on the screen, signaling a shift in the locus of attention. At this point, the heavy black border disappears from around the icon, and everything appears in its default display, ready again to

US 5742779 A	
Patent Number:	5,742,779
Date of Patent:	Apr. 21, 1998
CLASSIFICATION G06F 0001/00 G06F 0003/00 G06F 0009/00 G06F 0010/00 G06F 0011/00 G06F 0012/00 G06F 0013/00 G06F 0014/00 G06F 0015/00 G06F 0016/00 G06F 0017/00 G06F 0018/00 G06F 0019/00 G06F 0020/00 G06F 0021/00 G06F 0022/00 G06F 0023/00 G06F 0024/00 G06F 0025/00 G06F 0026/00 G06F 0027/00 G06F 0028/00 G06F 0029/00 G06F 0030/00 G06F 0031/00 G06F 0032/00 G06F 0033/00 G06F 0034/00 G06F 0035/00 G06F 0036/00 G06F 0037/00 G06F 0038/00 G06F 0039/00 G06F 0040/00 G06F 0041/00 G06F 0042/00 G06F 0043/00 G06F 0044/00 G06F 0045/00 G06F 0046/00 G06F 0047/00 G06F 0048/00 G06F 0049/00 G06F 0050/00 G06F 0051/00 G06F 0052/00 G06F 0053/00 G06F 0054/00 G06F 0055/00 G06F 0056/00 G06F 0057/00 G06F 0058/00 G06F 0059/00 G06F 0060/00 G06F 0061/00 G06F 0062/00 G06F 0063/00 G06F 0064/00 G06F 0065/00 G06F 0066/00 G06F 0067/00 G06F 0068/00 G06F 0069/00 G06F 0070/00 G06F 0071/00 G06F 0072/00 G06F 0073/00 G06F 0074/00 G06F 0075/00 G06F 0076/00 G06F 0077/00 G06F 0078/00 G06F 0079/00 G06F 0080/00 G06F 0081/00 G06F 0082/00 G06F 0083/00 G06F 0084/00 G06F 0085/00 G06F 0086/00 G06F 0087/00 G06F 0088/00 G06F 0089/00 G06F 0090/00 G06F 0091/00 G06F 0092/00 G06F 0093/00 G06F 0094/00 G06F 0095/00 G06F 0096/00 G06F 0097/00 G06F 0098/00 G06F 0099/00 G06F 0100/00 G06F 0101/00 G06F 0102/00 G06F 0103/00 G06F 0104/00 G06F 0105/00 G06F 0106/00 G06F 0107/00 G06F 0108/00 G06F 0109/00 G06F 0110/00 G06F 0111/00 G06F 0112/00 G06F 0113/00 G06F 0114/00 G06F 0115/00 G06F 0116/00 G06F 0117/00 G06F 0118/00 G06F 0119/00 G06F 0120/00 G06F 0121/00 G06F 0122/00 G06F 0123/00 G06F 0124/00 G06F 0125/00 G06F 0126/00 G06F 0127/00 G06F 0128/00 G06F 0129/00 G06F 0130/00 G06F 0131/00 G06F 0132/00 G06F 0133/00 G06F 0134/00 G06F 0135/00 G06F 0136/00 G06F 0137/00 G06F 0138/00 G06F 0139/00 G06F 0140/00 G06F 0141/00 G06F 0142/00 G06F 0143/00 G06F 0144/00 G06F 0145/00 G06F 0146/00 G06F 0147/00 G06F 0148/00 G06F 0149/00 G06F 0150/00 G06F 0151/00 G06F 0152/00 G06F 0153/00 G06F 0154/00 G06F 0155/00 G06F 0156/00 G06F 0157/00 G06F 0158/00 G06F 0159/00 G06F 0160/00 G06F 0161/00 G06F 0162/00 G06F 0163/00 G06F 0164/00 G06F 0165/00 G06F 0166/00 G06F 0167/00 G06F 0168/00 G06F 0169/00 G06F 0170/00 G06F 0171/00 G06F 0172/00 G06F 0173/00 G06F 0174/00 G06F 0175/00 G06F 0176/00 G06F 0177/00 G06F 0178/00 G06F 0179/00 G06F 0180/00 G06F 0181/00 G06F 0182/00 G06F 0183/00 G06F 0184/00 G06F 0185/00 G06F 0186/00 G06F 0187/00 G06F 0188/00 G06F 0189/00 G06F 0190/00 G06F 0191/00 G06F 0192/00 G06F 0193/00 G06F 0194/00 G06F 0195/00 G06F 0196/00 G06F 0197/00 G06F 0198/00 G06F 0199/00 G06F 0200/00 G06F 0201/00 G06F 0202/00 G06F 0203/00 G06F 0204/00 G06F 0205/00 G06F 0206/00 G06F 0207/00 G06F 0208/00 G06F 0209/00 G06F 0210/00 G06F 0211/00 G06F 0212/00 G06F 0213/00 G06F 0214/00 G06F 0215/00 G06F 0216/00 G06F 0217/00 G06F 0218/00 G06F 0219/00 G06F 0220/00 G06F 0221/00 G06F 0222/00 G06F 0223/00 G06F 0224/00 G06F 0225/00 G06F 0226/00 G06F 0227/00 G06F 0228/00 G06F 0229/00 G06F 0230/00 G06F 0231/00 G06F 0232/00 G06F 0233/00 G06F 0234/00 G06F 0235/00 G06F 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0544/00 G06F 0545/00 G06F 0546/00 G06F 0547/00 G06F 0548/00 G06F 0549/00 G06F 0550/00 G06F 0551/00 G06F 0552/00 G06F 0553/00 G06F 0554/00 G06F 0555/00 G06F 0556/00 G06F 0557/00 G06F 0558/00 G06F 0559/00 G06F 0560/00 G06F 0561/00 G06F 0562/00 G06F 0563/00 G06F 0564/00 G06F 0565/00 G06F 0566/00 G06F 0567/00 G06F 0568/00 G06F 0569/00 G06F 0570/00 G06F 0571/00 G06F 0572/00 G06F 0573/00 G06F 0574/00 G06F 0575/00 G06F 0576/00 G06F 0577/00 G06F 0578/00 G06F 0579/00 G06F 0580/00 G06F 0581/00 G06F 0582/00 G06F 0583/00 G06F 0584/00 G06F 0585/00 G06F 0586/00 G06F 0587/00 G06F 0588/00 G06F 0589/00 G06F 0590/00 G06F 0591/00 G06F 0592/00 G06F 0593/00 G06F 0594/00 G06F 0595/00 G06F 0596/00 G06F 0597/00 G06F 0598/00 G06F 0599/00 G06F 0600/00 G06F 0601/00 G06F 0602/00 G06F 0603/00 G06F 0604/00 G06F 0605/00 G06F 0606/00 G06F 0607/00 G06F 0608/00 G06F 0609/00 G06F 0610/00 G06F 0611/00 G06F 0612/00 G06F 0613/00 G06F 0614/00 G06F 0615/00 G06F 0616/00 G06F 0617/00 G06F 0618/00 G06F 0619/00 G06F 0620/00 G06F 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0698/00 G06F 0699/00 G06F 0700/00 G06F 0701/00 G06F 0702/00 G06F 0703/00 G06F 0704/00 G06F 0705/00 G06F 0706/00 G06F 0707/00 G06F 0708/00 G06F 0709/00 G06F 0710/00 G06F 0711/00 G06F 0712/00 G06F 0713/00 G06F 0714/00 G06F 0715/00 G06F 0716/00 G06F 0717/00 G06F 0718/00 G06F 0719/00 G06F 0720/00 G06F 0721/00 G06F 0722/00 G06F 0723/00 G06F 0724/00 G06F 0725/00 G06F 0726/00 G06F	



Detailed Description Text - DETX (25):

FIG. 4 shows what happens when an icon with an associated animation is single-clicked by the user. Currently, such icons are typically associated with lexical items having either verb-like or preposition-like meanings, and the animations help communicate the essential verb-like or preposition-like senses. In their default views, these icons all currently appear in the standard size and shape icon frame—a single-pixel border surrounding a 48.times.64 pixel display area.

Detailed Description Text - DETX (27):

Once the visual feedback of the click is complete, the cursor disappears, and the entire icon—the frame along with its enclosed image—is enlarged by doubling dimensions in each direction (yielding a fourfold increase in area). This stage is illustrated in Drawing #2 of FIG. 4. This enlarged image is displayed in a position that is centered over the smaller icon, as long as this is possible without obscuring any of the enlarged image. If any of the enlarged image would be obscured by the boundaries of the window if so displayed, then the enlarged image is shifted the minimal distance(s) to appear with completely unobstructed visibility, as close to the position centered over the smaller icon as possible. If text is being displayed (a user-selectable option), then when an icon enlarges in the Picture Gallery, that text enlarges as well and is displayed centered beneath the enlarged display; in a Storyboard, the text associated with an icon changes its polarity at this point in the text area: to appear as white on black. If speech output is ON (a user-selectable option), then just before the enlarged display any gloss-words associated with the icon are spoken aloud. In FIG. 4, the word "wave" would be spoken aloud just before the enlargement and animation begin.

Detailed Description Text - DETX (28):

Patent No.	5,742,779
Date of Patent	Apr. 21, 1998
CLASSIFICATION G06F 0001/00 G06F 0003/00 G06F 0009/00 G06F 0010/00 G06F 0011/00 G06F 0012/00 G06F 0013/00 G06F 0014/00 G06F 0015/00 G06F 0016/00 G06F 0017/00 G06F 0018/00 G06F 0019/00 G06F 0020/00 G06F 0021/00 G06F 0022/00 G06F 0023/00 G06F 0024/00 G06F 0025/00 G06F 0026/00 G06F 0027/00 G06F 0028/00 G06F 0029/00 G06F 0030/00 G06F 0031/00 G06F 0032/00 G06F 0033/00 G06F 0034/00 G06F 0035/00 G06F 0036/00 G06F 0037/00 G06F 0038/00 G06F 0039/00 G06F 0040/00 G06F 0041/00 G06F 0042/00 G06F 0043/00 G06F 0044/00 G06F 0045/00 G06F 0046/00 G06F 0047/00 G06F 0048/00 G06F 0049/00 G06F 0050/00 G06F 0051/00 G06F 0052/00 G06F 0053/00 G06F 0054/00 G06F 0055/00 G06F 0056/00 G06F 0057/00 G06F 0058/00 G06F 0059/00 G06F 0060/00 G06F 0061/00 G06F 0062/00 G06F 0063/00 G06F 0064/00 G06F 0065/00 G06F 0066/00 G06F 0067/00 G06F 0068/00 G06F 0069/00 G06F 0070/00 G06F 0071/00 G06F 0072/00 G06F 0073/00 G06F 0074/00 G06F 0075/00 G06F 0076/00 G06F 0077/00 G06F 0078/00 G06F 0079/00 G06F 0080/00 G06F 0081/00 G06F 0082/00 G06F 0083/00 G06F 0084/00 G06F 0085/00 G06F 0086/00 G06F 0087/00 G06F 0088/00 G06F 0089/00 G06F 0090/00 G06F 0091/00 G06F 0092/00 G06F 0093/00 G06F 0094/00 G06F 0095/00 G06F 0096/00 G06F 0097/00 G06F 0098/00 G06F 0099/00 G06F 0100/00 G06F 0101/00 G06F 0102/00 G06F 0103/00 G06F 0104/00 G06F 0105/00 G06F 0106/00 G06F 0107/00 G06F 0108/00 G06F 0109/00 G06F 0110/00 G06F 0111/00 G06F 0112/00 G06F 0113/00 G06F 0114/00 G06F 0115/00 G06F 0116/00 G06F 0117/00 G06F 0118/00 G06F 0119/00 G06F 0120/00 G06F 0121/00 G06F 0122/00 G06F 0123/00 G06F 0124/00 G06F 0125/00 G06F 0126/00 G06F 0127/00 G06F 0128/00 G06F 0129/00 G06F 0130/00 G06F 0131/00 G06F 0132/00 G06F 0133/00 G06F 0134/00 G06F 0135/00 G06F 0136/00 G06F 0137/00 G06F 0138/00 G06F 0139/00 G06F 0140/00 G06F 0141/00 G06F 0142/00 G06F 0143/00 G06F 0144/00 G06F 0145/00 G06F 0146/00 G06F 0147/00 G06F 0148/00 G06F 0149/00 G06F 0150/00 G06F 0151/00 G06F 0152/00 G06F 0153/00 G06F 0154/00 G06F 0155/00 G06F 0156/00 G06F 0157/00 G06F 0158/00 G06F 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0698/00 G06F 0699/00 G06F 0700/00 G06F 0701/00 G06F 0702/00 G06F 0703/00 G06F 0704/00 G06F 0705/00 G06F 0706/00 G06F 0707/00 G06F 0708/00 G06F 0709/00 G06F 0710/00 G06F 0711/00 G06F 0712/00 G06F 0713/00 G06F 0714/00 G06F 0715/00 G06F 0716/00 G06F 0717/00 G06F 0718/00 G06F 0719/00 G06F 0720/00 G06F 0721/00 G06F 0722/00 G06F 0723/00 G06F 0724/00 G06F 0725/00 G06F 0726/00 G06F 0	

FIG. 6 illustrates a way in which sequences of icons and their linguistic glosses, when assembled in a Storyboard to support communication, may be displayed at varying tempos to take advantage of the relatively stronger modalities of the various different system users. It is important to recall here that communication inherently involves two (or more) individuals, and that—by observation—a very common scenario in the use of this system is that one of the persons is language-disadvantaged while the other person is not. Such, for example, is the situation within homes with a single adventitiously language-disadvantaged person, say a stroke survivor, where other family

loan and enclosed image both enlarge for specified period of time
 enlargement = 2x, for period of ca. 2 seconds.

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• loan and enclosed image both enlarge for specified period of time.
 • Viewmaster = Ref. for period of ca. 3 seconds.



Detailed Description Text - DETX (32):

When an icon contains no icon in a layer beneath the current layer, however, we use the method shown in FIG. 5 to communicate graphically the unopenability of the icon to the user. When the user double-clicks on a terminal-node icon, as in Drawing #1 of FIG. 5, expecting it to open, the program first displays the standard size and frame icon view of the item, such as is displayed after an icon has been selected and its enlarged display has run its course. The program immediately surrounds this standard-format icon by a heavy black frame. Then, instead of opening onto another level, the image in the 48.times.64 pixel display area is redrawn in gray, as shown in Drawing #2 of FIG. 5. The grayed-out version of the graphic image is displayed for approximately 1 second, unless truncated by an interrupting single click by the user. Upon truncation or running its course, the gray image is replaced by the original image drawn in black, as shown in Drawing #3 of FIG. 5. The icon is still surrounded by the heavy black border, indicating that it is the most recent item of manipulation by the user. When the user clicks elsewhere on the screen, as shown in Drawing #4 of FIG. 5, the heavy black border disappears, and the default view of the icon--whether in the standard format frame or as a nonstandard scene element--reasserts itself.

Detailed Description Text - DETX (34):

FIG. 6 illustrates a way in which sequences of icons and their linguistic glosses, when assembled in a Storyboard to support communication, may be displayed at varying tempos to take advantage of the relatively stronger modalities of the various different system users. It is important to recall here that communication inherently involves two (or more) individuals, and that--by observation--a very common scenario in the use of this system is that one of the persons is language-disadvantaged while the other person is not. Such, for example, is the situation within homes with a single adventitiously language-disadvantaged person, say a stroke survivor, where other family

US00742779A

Patent Number: 5,742,779

Date of Patent: Apr. 21, 1998

INVENTION UNDO

AND AHEAD

Pat. Info. Also, Robert

Francisco, Larry &

et al. of Calif.

Att. Info. Also, CALZ.

Section Date

Pat. No. 5,742,779, checked

U.S. Pat. No. 5,742,779, Nov. 14, 1998,

CLASS. 360/390, 360/391, 360/392, 360/393, 360/394, 360/395, 360/396, 360/397, 360/398, 360/399, 360/400, 360/401, 360/402, 360/403, 360/404, 360/405, 360/406, 360/407, 360/408, 360/409, 360/410, 360/411, 360/412, 360/413, 360/414, 360/415, 360/416, 360/417, 360/418, 360/419, 360/420, 360/421, 360/422, 360/423, 360/424, 360/425, 360/426, 360/427, 360/428, 360/429, 360/430, 360/431, 360/432, 360/433, 360/434, 360/435, 360/436, 360/437, 360/438, 360/439, 360/440, 360/441, 360/442, 360/443, 360/444, 360/445, 360/446, 360/447, 360/448, 360/449, 360/450, 360/451, 360/452, 360/453, 360/454, 360/455, 360/456, 360/457, 360/458, 360/459, 360/460, 360/461, 360/462, 360/463, 360/464, 360/465, 360/466, 360/467, 360/468, 360/469, 360/470, 360/471, 360/472, 360/473, 360/474, 360/475, 360/476, 360/477, 360/478, 360/479, 360/480, 360/481, 360/482, 360/483, 360/484, 360/485, 360/486, 360/487, 360/488, 360/489, 360/490, 360/491, 360/492, 360/493, 360/494, 360/495, 360/496, 360/497, 360/498, 360/499, 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Claims Text - CLTX (7):

resuming the display of the plurality of icons, excluding said desired one icon, with a second representation of said desired one icon, having a third size which is smaller than said second size and larger than said first size, replacing said first representation of said desired one icon, on the display means.

Claims Text - CLTX (18):

moving the cursor means on the display by the user, through the pointing device to a desired one of said plurality of icons, said desired one icon, having a first size and a first spatial orientation of a first image, and is displayed on the display at a desired location;

Claims Text - CLTX (20):

displaying a second image, representing language information of said desired one icon, in response to the selection of said desired one icon, said second image having a second size, larger than said first size of said desired one icon, and being of said first spatial orientation of said first image;

Claims Text - CLTX (40):

moving the cursor means on the display means by the user through the pointing device to a desired one of said plurality of icons, said desired one icon, having a first size and a frame with a first thickness, is displayed at a desired location on said display means;

Claims Text - CLTX (43):

resuming the display of the plurality of icons, excluding said desired one icon, with a second representation of said desired one icon, having a third

Details Text Image HTML KWIC



US005742779A

Patent (us) (11) Patent Number: 5,742,779
(42) Date of Patent: Apr. 21, 1998

INVENTION (10)
AND ADDRESS

INVENTOR (11) 01/04/98 01/04/98 01/04/98
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Patterson Leroy &
24, St. of Calif.

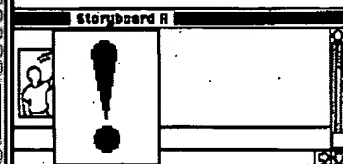
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(See continued on next page.)

Chief Primary Examiner—John E. Brown
Assistant Agent or Post-Office & Microsoft LLP
Rancho L. Va.

(57) ABSTRACT
Language oriented information is communicated to and from a user by the use of a computer with a dynamic graphical display, having a pointing device for visually indicating a pointer through a context on the display. Video annotations of the method include acting as a user to activate when the cursor is positioned on the icon, into projecting an icon when it is activated, changing the icon shape to denote its internal state, varying the play back speed of the external input of an icon, moving across different layers of a hierarchical structure, and not scrolling and scrolling with icons.
30 Claims, 34 Drawing Sheets



Icon and enclosed image both enlarge for specified period of time.
Marginal = 2nd, for period of ca. 8 seconds.

Page HTML Full

resuming the display of the plurality of icons, excluding said desired one icon with a second representation of said desired one icon having a third

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effect is to be performed. The previewing program preferably has a presentation editing mode, in which several of the images of the presentation are displayed simultaneously at a size smaller than that at which they will be displayed during the presentation. In the presentation editing mode, the previewing program preferably enables the user to apply any of a number of available transition effects to a pair of images that is adjacent in the sequence of the presentation by selecting a pair of images and selecting a transition effect to apply to the selected pair of images. When a user applies a transition effect to a pair of images, the previewing program preferably previews the assigned transition effect by replacing the target image of the selected pair with the source image of the selected pair, then applying the transition effect to that source image in order to visually transform it back into the target image. After the user has assigned a presentation effect to a pair of images, the previewing program displays a transition effect indicator, such as a small icon, in conjunction with a pair of images in the presentation editing mode. The user may preferably also preview any transition effect assigned to a pair of images by using a pointing device to select the transition effect indication displayed in conjunction with the pair of images.

Detailed Description Text - DETX (5)

FIG. 2A shows the output displayed by the previewing program in its presentation editing mode. A display area 200 contains three images, 201, 202, 203, that comprise a sample presentation. These images are arranged in a presentation sequence from left to right, so that image 201 is the first image, which is followed in the sequence by the second image, 202, which is followed in the sequence by the third image, 203. While three images are shown here to facilitate the discussion of the invention, many actual presentations are comprised of a much larger number of images. Displayed beneath two of the images, 201 and 202, are transition effect icons 211 and 212, respectively. As described in greater detail below, the user is able to use these transition effect icons to preview transition effects. More generally, the previewing

UNCLASSIFIED
 (11) (12) (13) Present Number: 5,640,522
 (14) Date of Patent: Jan. 17, 1997

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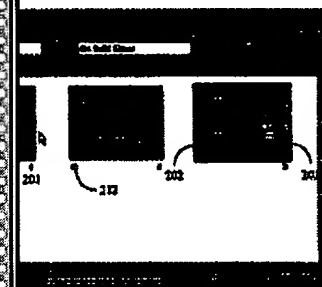
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ABSTRACT

A method and system for previewing transitions between pairs of images in presentation. In a presentation environment, a transition effect previewing program ("the previewing program") enables a user to preview a transition effect assigned to a pair of images within a presentation. The previewing program first displays in a display area both the source image and the target image. When the previewing program receives a previewing instruction from the user, the previewing program displays the source image in a position position in the display area. The previewing program then displays the assigned transition effect to the source image displayed in the position position in the display area. In a further preferred embodiment, the previewing program responds to the position in which the target image is first displayed. In yet another preferred embodiment, the user may have a previewing instruction by selecting a transition effect to a pair of images, or by selecting a transition effect button displayed in conjunction with a pair of images to which a transition effect has already been assigned.

19 Claims, 34 Drawing Sheets



HTML Full

US-PAT-NO: 5068909

DOCUMENT-IDENTIFIER: US 5068909 A

TITLE: Method and apparatus for generating quantified displays

----- KWIC -----

Abstract Text - ABTX (1):

An apparatus and method for removing background noise and noise from an image by comparing each pixel in the image with pixels defining a variably shaped and sized kernel. The size and kernel are optimized for the particular characteristics of the data analyzed.

Brief Summary Text - BSTX (9):

According to the teachings of the invention, there is disclosed method and apparatus for background noise removal which uses a variable size kernel or neighborhood of adjacent pixels next to the pixel being processed. The value of the pixel being compared to all, or some selected subset, of the pixels in the neighborhood. This minimum value is then substituted for the pixel being processed. When all pixels have been so processed, comparing them to the values of the surrounding pixels in the neighborhood (each pixel has its own neighborhood), the result is a "background image". A background image is an image where the value of the smallest valued pixel in the neighborhood to which

Next page

U.S. Patent

Nov. 25, 1991

Sheet 9 of 9

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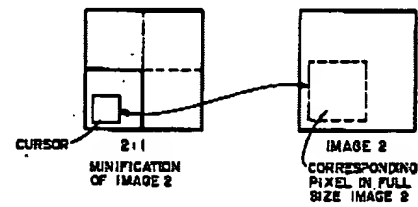


FIG. 19

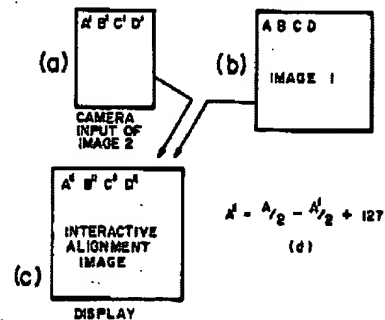


FIG. 20

disclosed is a new implementation for the operation, double-clicking title bar of dialog or message box, in the current GUI (Graphical User Interface) flavored operating system for usability improvement. The new implementation is that double-clicking the title bar enlarges the dialog or message box along with the all contents of the dialog or message box in order to fit it to the maximum screen size or user-defined size. This enables the users to continue the normal operation with the enlarged dialog or message box. Double-clicking the title bar of the enlarged dialog or message box changes the size to the original.

Recently, as computer screen resolution is becoming large, the actual size of images displayed on the screen is becoming small, which decreases the visibility and usability.

Currently, available operating systems have no effect on double-clicking the title bar of a dialog or message box. This new implementation enhances the visibility, even in the screen high-resolution environment. This can be implemented by either an application software or an operating system.

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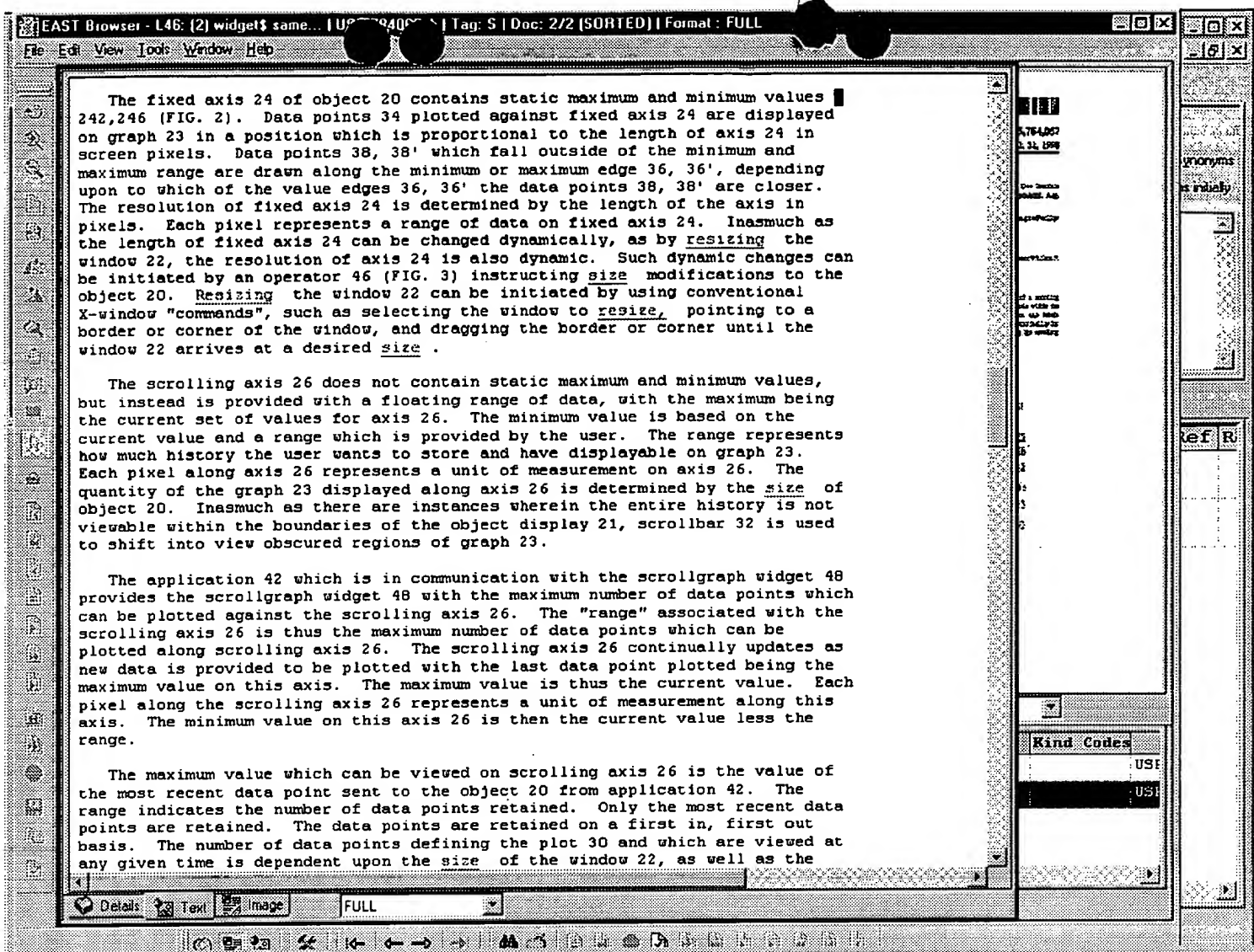
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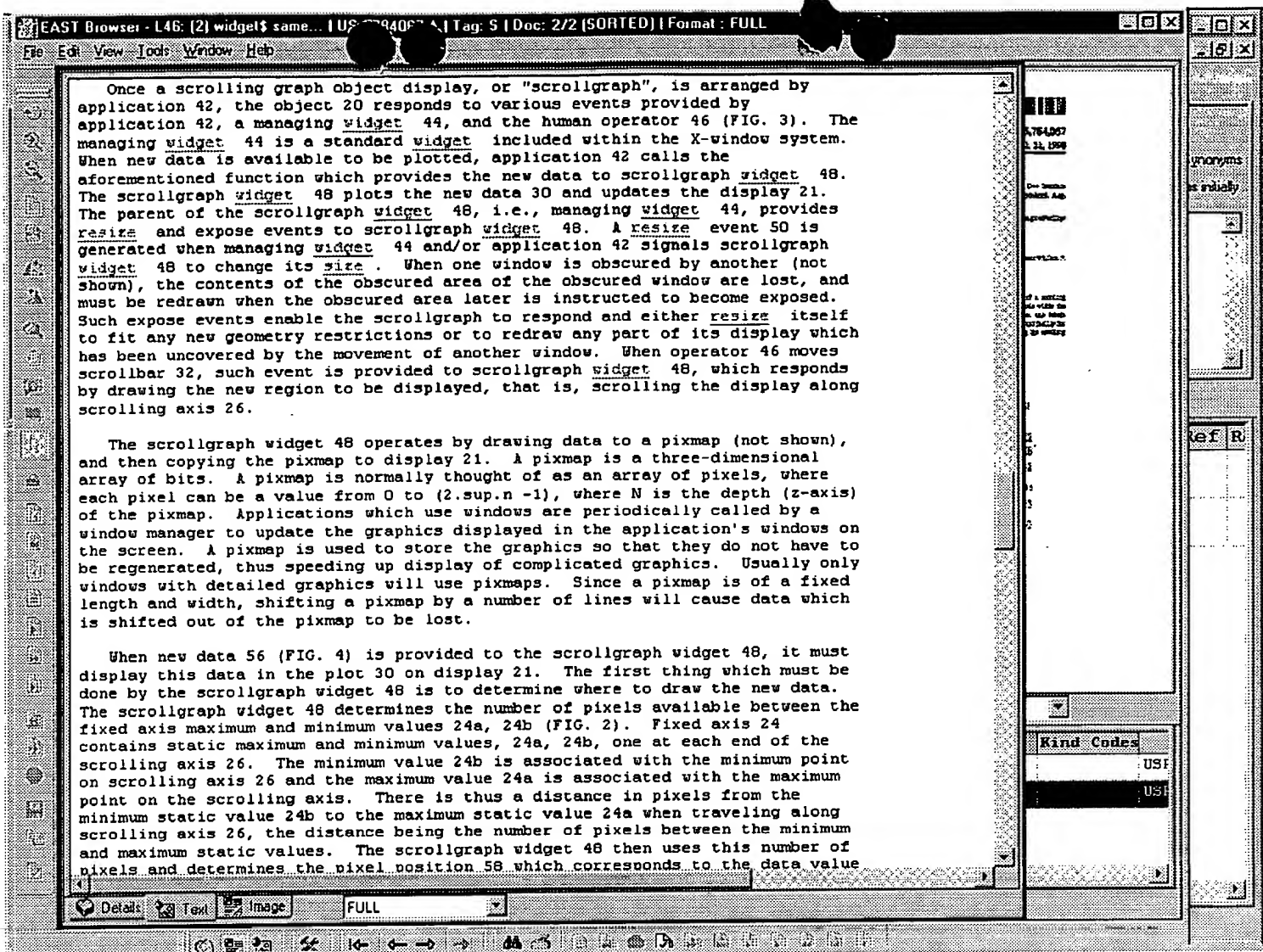
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2	<input type="checkbox"/>	<input type="checkbox"/>	US 5784067 A	19980721	7	Software object for providing a display of a	345/440		

Hit Details





When scrollgraph widget 48 receives a resize event 50 (FIG. 6) it must resize the pixmap. The scrollgraph widget 48 resizes 52 the pixmap by removing the old pixmap from memory and allocating sufficient memory for a pixmap with the new dimensions. Since the pixmap has been resized, data points along the fixed axis 24 must be adjusted to correspond to the new length in pixels of the fixed axis. Once this is done, and the pixmap is redrawn 54, the pixmap is copied to display 21, with attendant axes, tic marks, labels, and the like.

There is thus provided a software object which can be used for insertion of plots of real time data into a windowed graph, and subsequently can be used easily to update the graph, and which further provides the ability to view any region of the plot which may be obscured.

It is to be understood that the present invention is by no means limited to the particular construction herein disclosed and/or shown in the drawings, but also comprises any modifications or equivalents within the scope of the claims.

CLAIMS:

What is claimed is:

1. A software object for providing a display of a scrolling real-time graph, the object comprising:

a window;

an automatically generated axis graphic comprising tic marks and numeric labels within said window;

an automatically generated and automatically updated scrolling axis graphic comprising tic marks and numeric labels within said window;

a plot within said window;

means in said window for viewing obscured regions of the graph along said scrolling axis, wherein said means for viewing obscured regions of the graph comprise events provided by a selected one of a parent application, a managing widget, and an operator; and

a scrollgraph widget;

wherein said parent application is operative to call an interface function which is operative to format new data and to provide the new data from said parent application to said scrollgraph widget, said scrollgraph widget being adapted to plot the new data and automatically update said plot.

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3. A software object for providing a display of a scrolling real-time graph, the object comprising:

- a window;
- a fixed axis within said window;
- a scrolling axis within said window;
- axis labels within said window;
- a plot within said window: and

means in said window for viewing obscured regions of the graph along said scrolling axis, wherein said means for viewing obscured regions of the graph comprise events provided by a selected one of an application, a managing widget, and an operator, and wherein said managing widget is the parent of a scrollgraph widget and is adapted to provide resize and expose events to said scrollgraph widget, and said application is adapted to provide resize and expose events to said scrollgraph widget.

4. The object in accordance with claim 3 wherein said scrollgraph widget includes a pixmap comprising a two-dimensional array of pixels and, upon receipt of said resize event resizes said pixmap, adjusts data points along said fixed axis to correspond to a new length of pixels available in said fixed axis, redraws said pixmap, and copies said pixmap to said display.

5. The object in accordance with claim 3 wherein said means for viewing obscured regions of the graph comprise a scrollbar, and said events provided by an operator are occasioned by operator manipulations of said scrollbar, which event is provided to a scrollgraph widget which draws a new region to be displayed in said window.

6. The object in accordance with claim 5 wherein said scrollgraph widget includes a pixmap comprising a two-dimensional array of pixels, and receives information from said scrollbar as to the extent of movement of said scrollbar by the operator, and using said extent of movement determines a new section of said pixmap to display in said window, and copies said new section of said pixmap to said display.

7. The object in accordance with claim 3 wherein said scrollgraph widget includes a pixmap comprising a two-dimensional array of pixels, and upon receipt of said new data determines the number of pixels available between minimum and maximum values on said fixed axis, using the number of pixels found

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